

Fig. 1

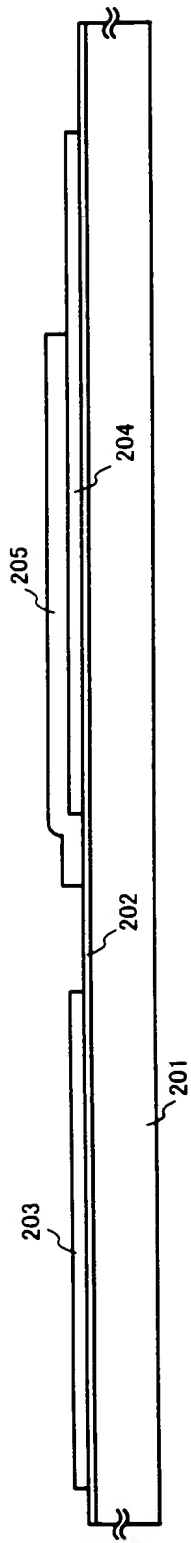


Fig. 2(A)

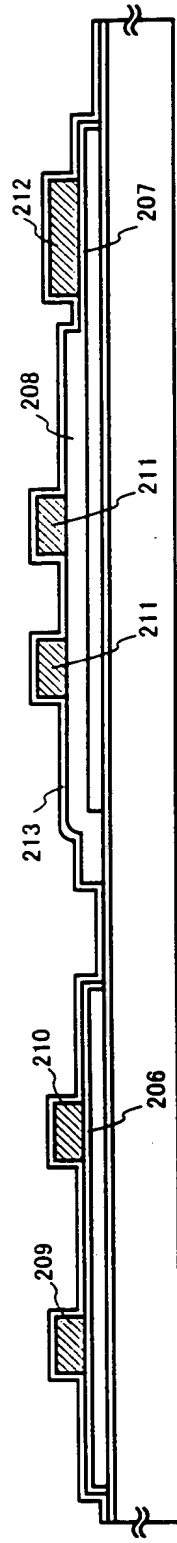


Fig. 2(B)

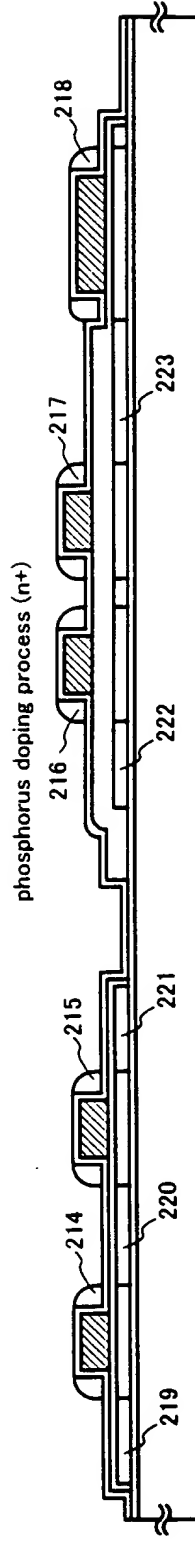
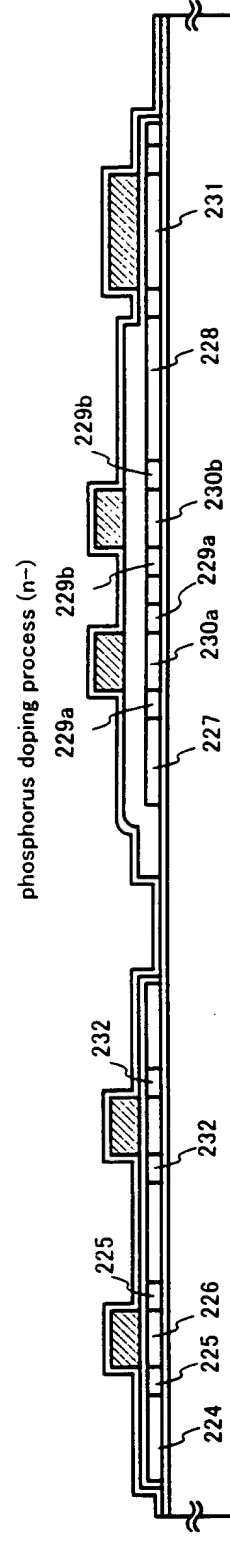


Fig. 2(C)



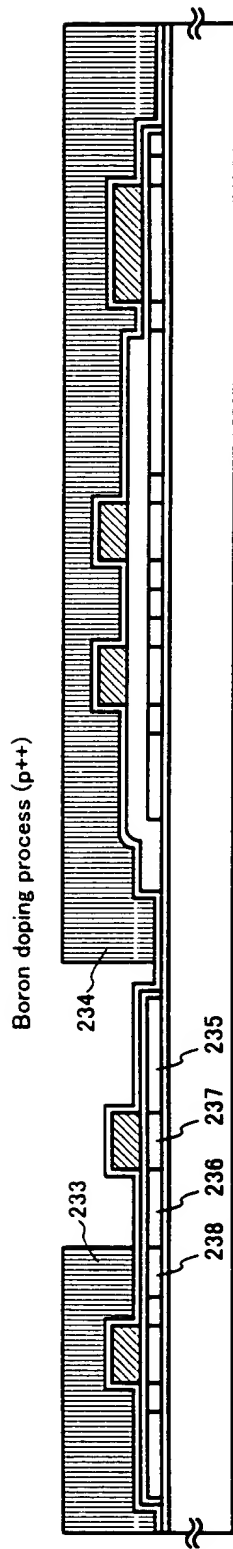


Fig. 3(A)

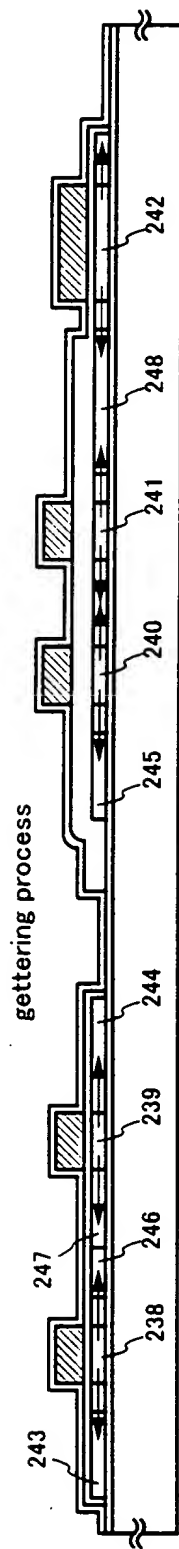
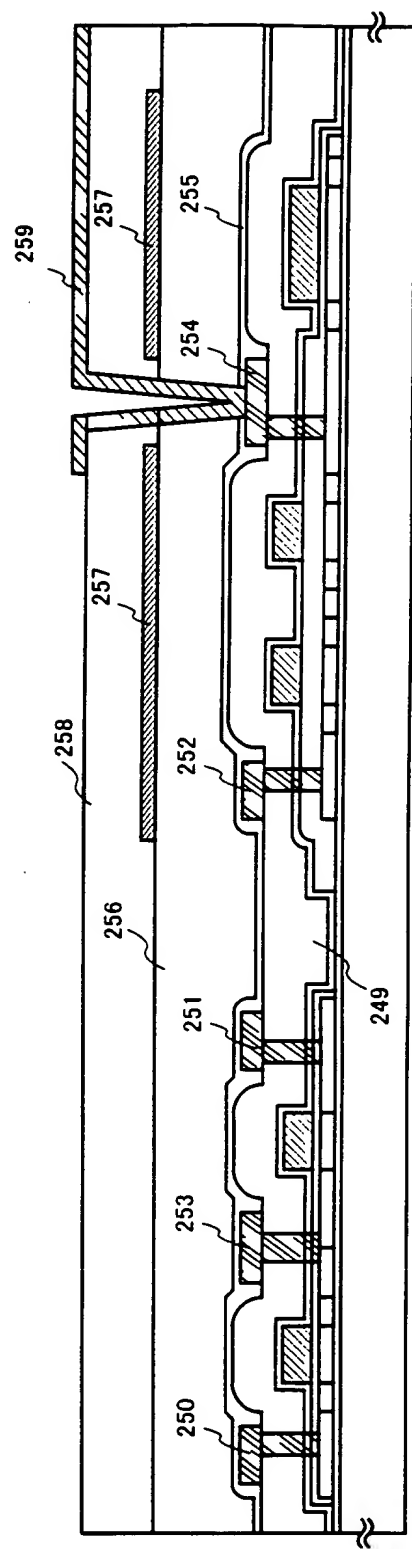


Fig. 3(B)



driver circuit

pixel matrix circuit

Fig. 3(C)

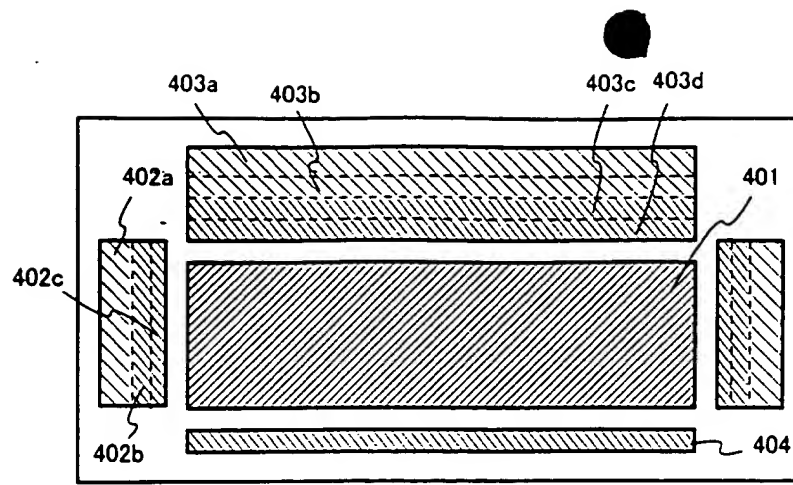
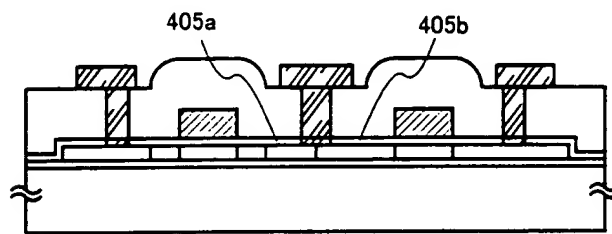

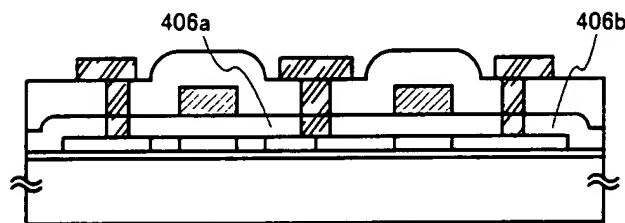



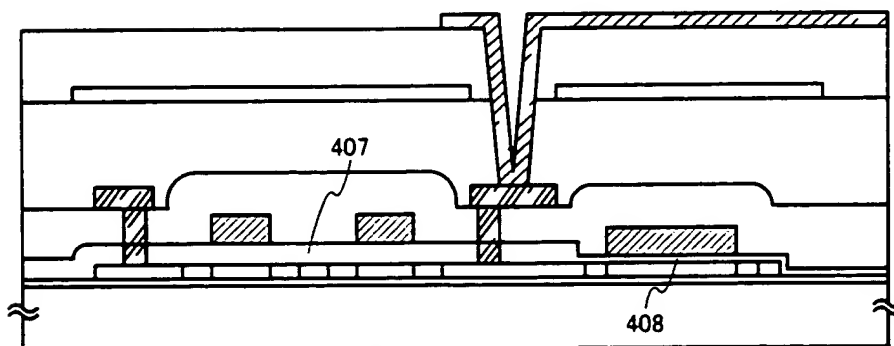
Fig. 4(A)




**Fig. 4(B) CMOS circuit of the area shown with hatching
 in Fig. 4(A)**



**Fig. 4(C) CMOS circuit of the region shown with hatching
 in Fig. 4(A)**



**Fig. 4(D) pixel matrix circuit of the area shown with hatching
 in Fig. 2(A)**

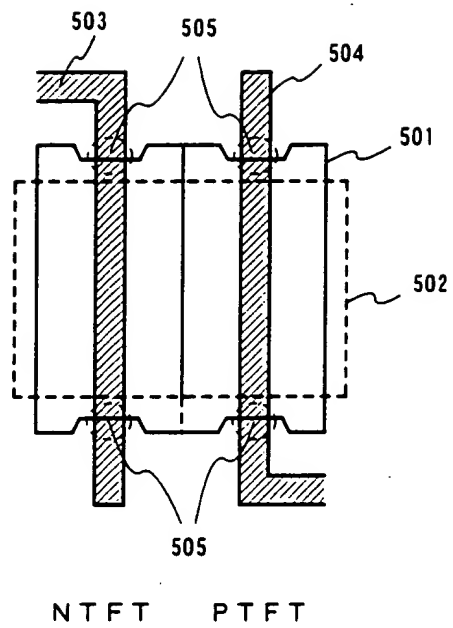


Fig. 5

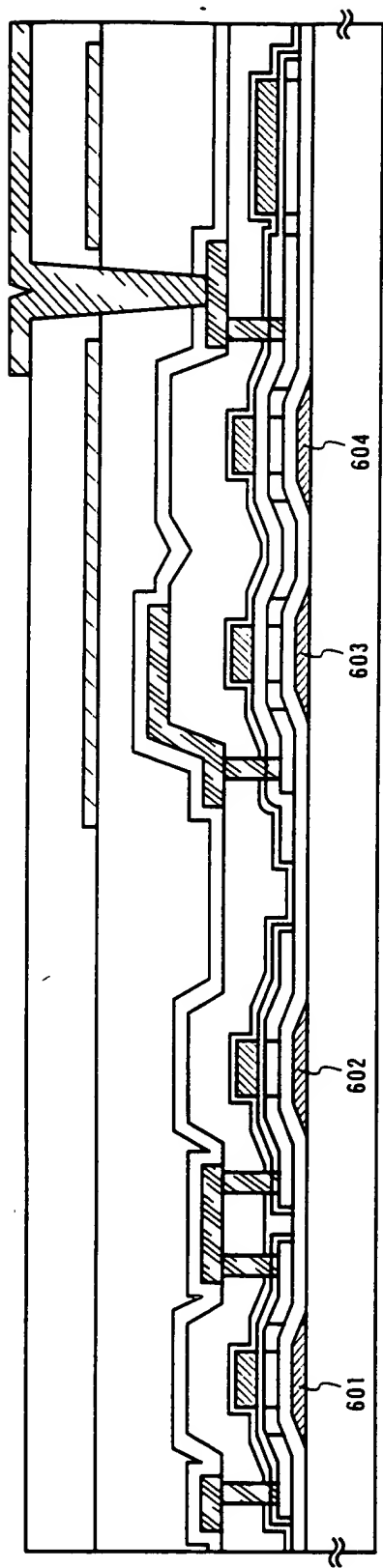


Fig. 6(A)

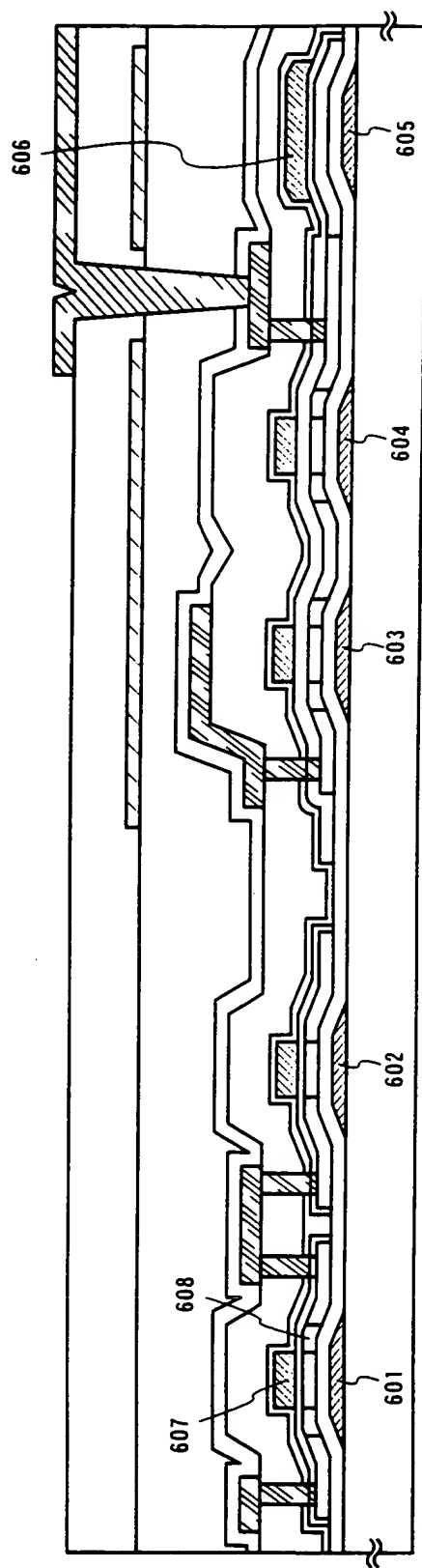


Fig. 6(B)

phosphorus doping process

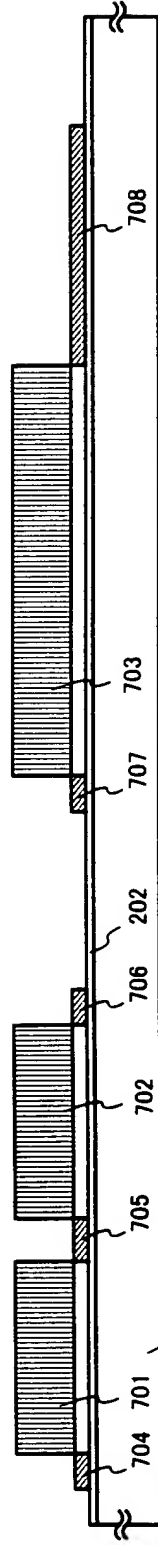


Fig. 7(A)

gettering process

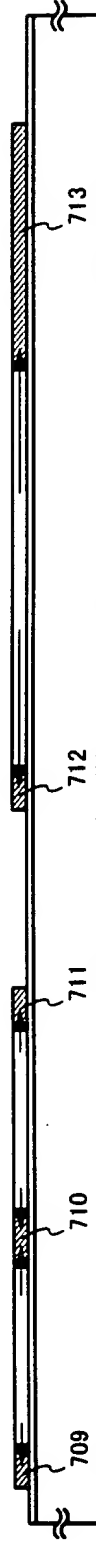


Fig. 7(B)

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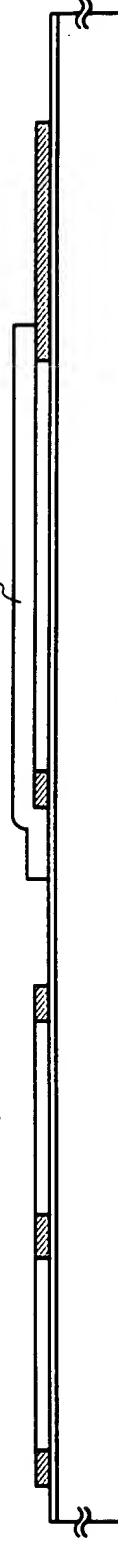


Fig. 7(C)

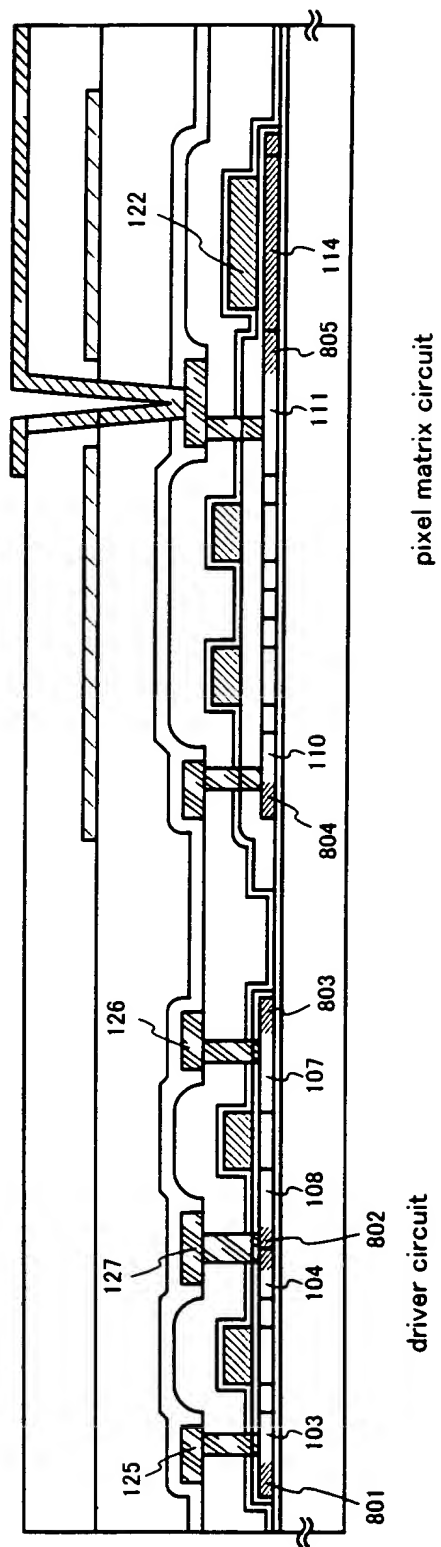


Fig. 8

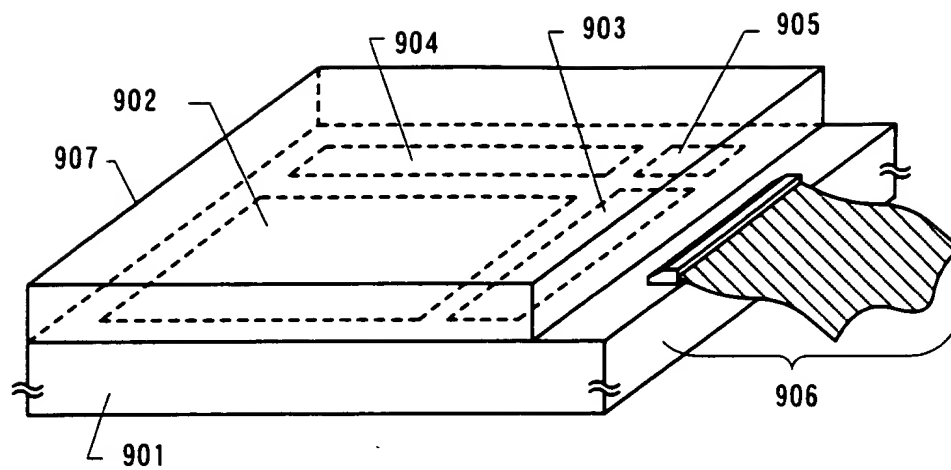


Fig. 9

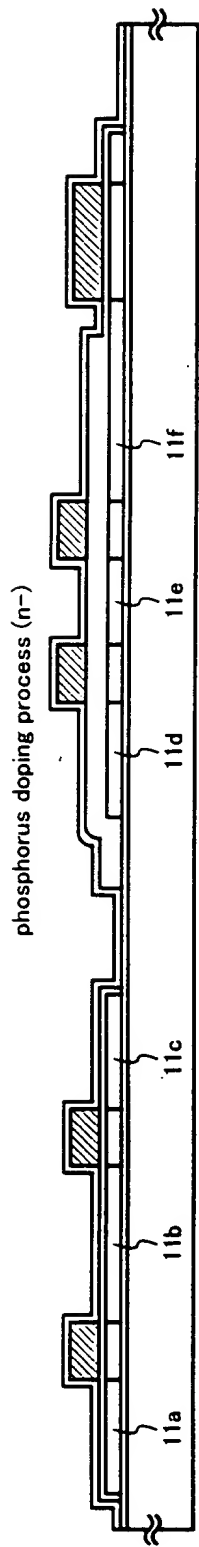


Fig. 10(A)

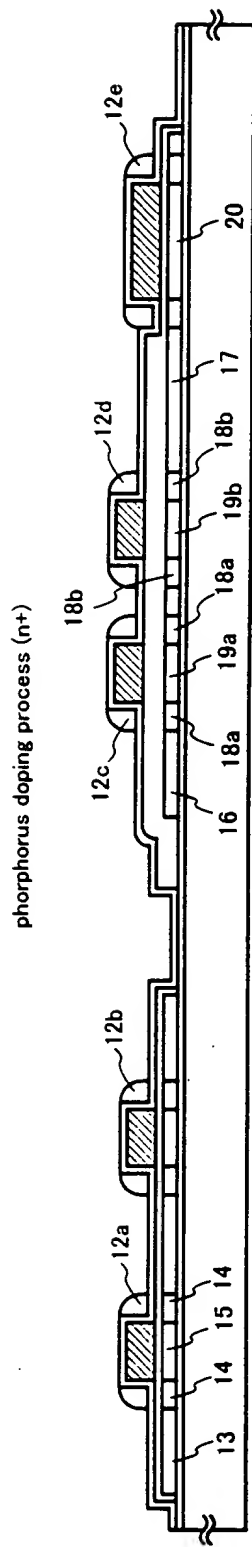


Fig. 10(B)

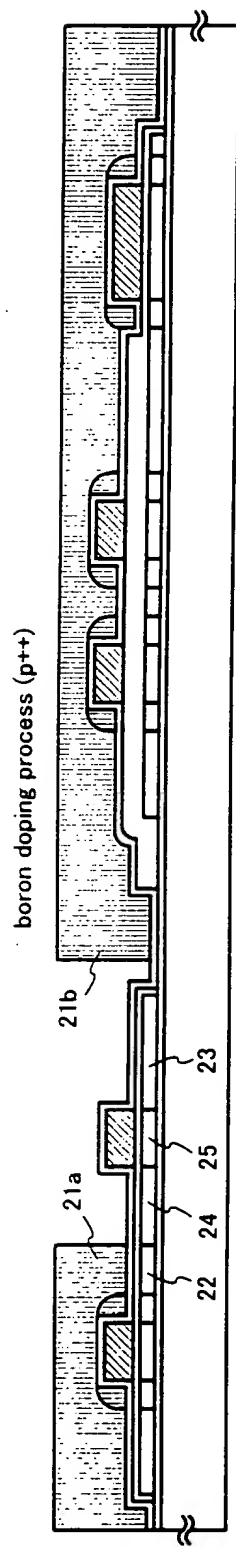


Fig. 10(C)

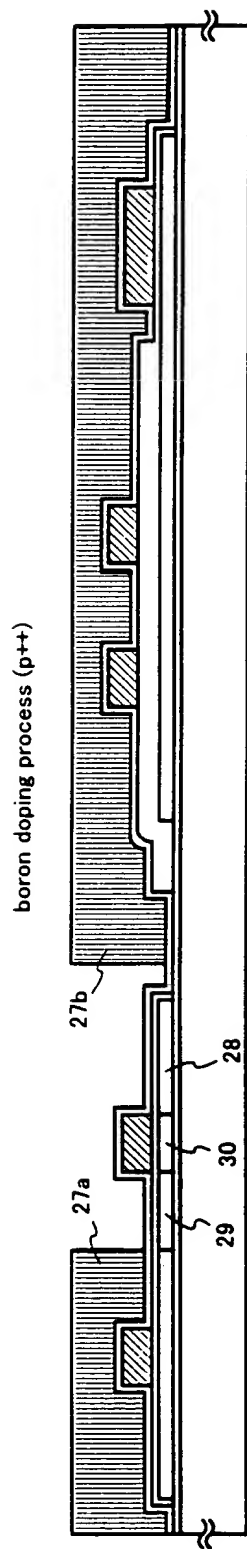


Fig. 11(A)

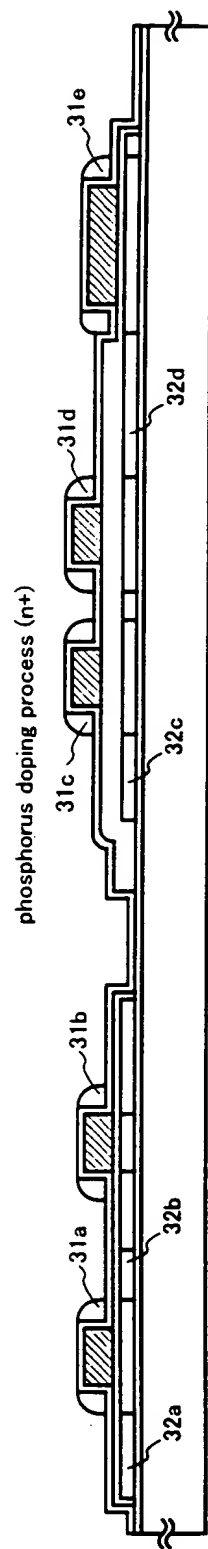


Fig. 11(B)

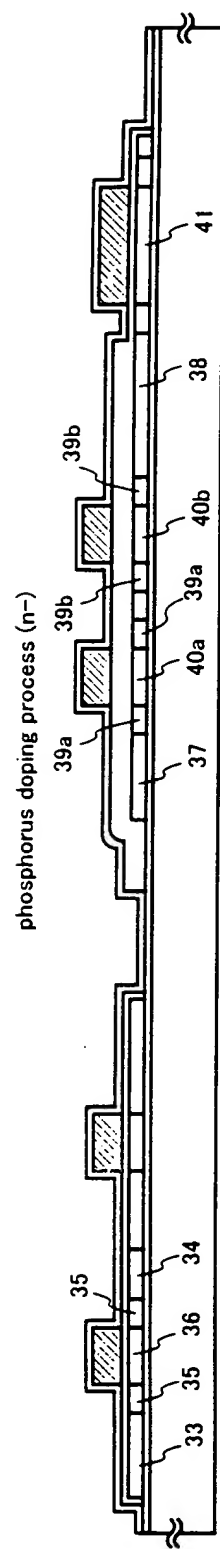


Fig. 11(C)

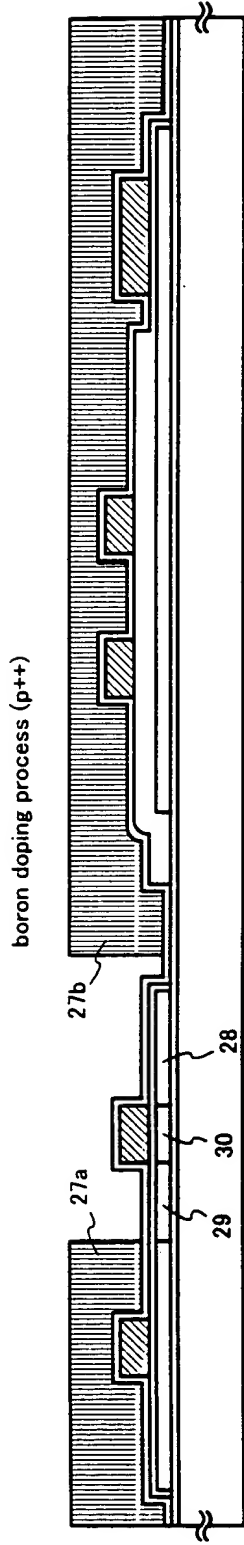


Fig. 12(A)

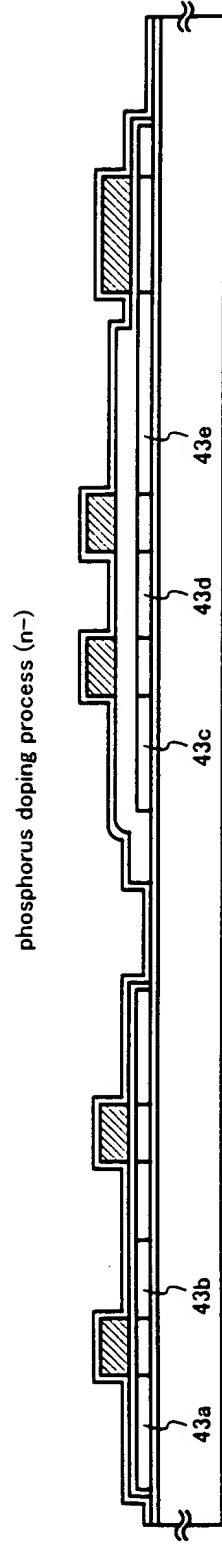


Fig. 12(B)

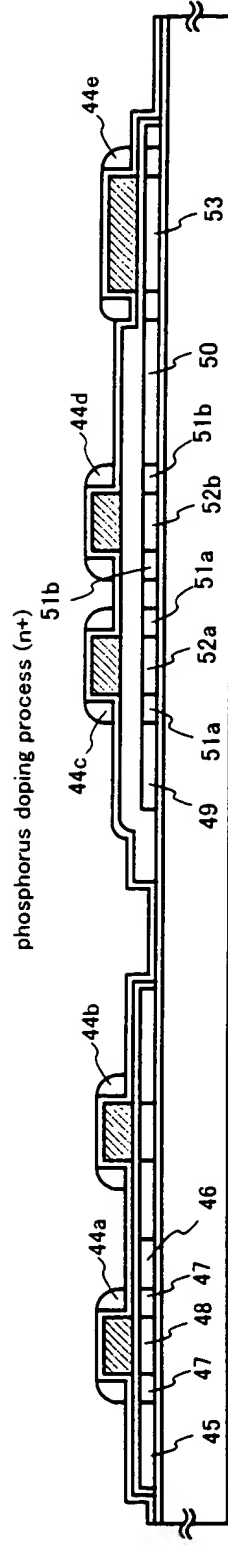


Fig. 12(C)

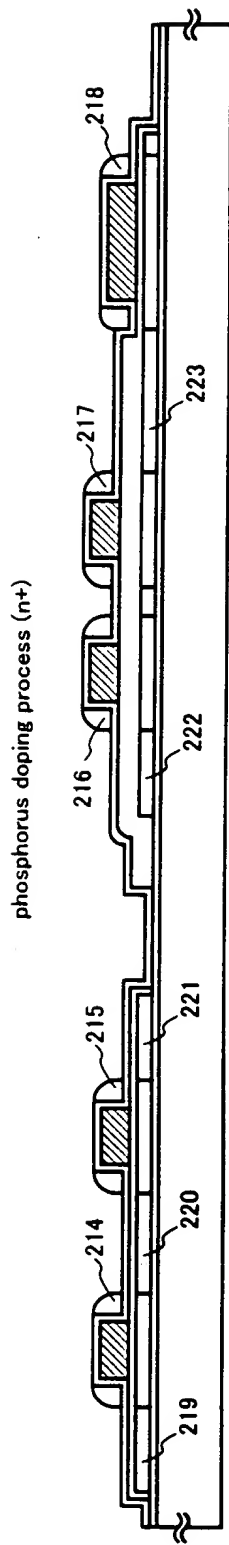


Fig. 13(A)

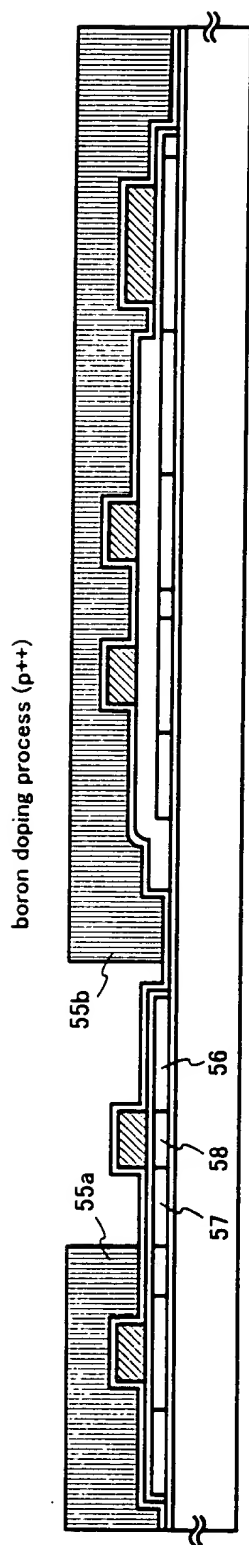


Fig. 13(B)

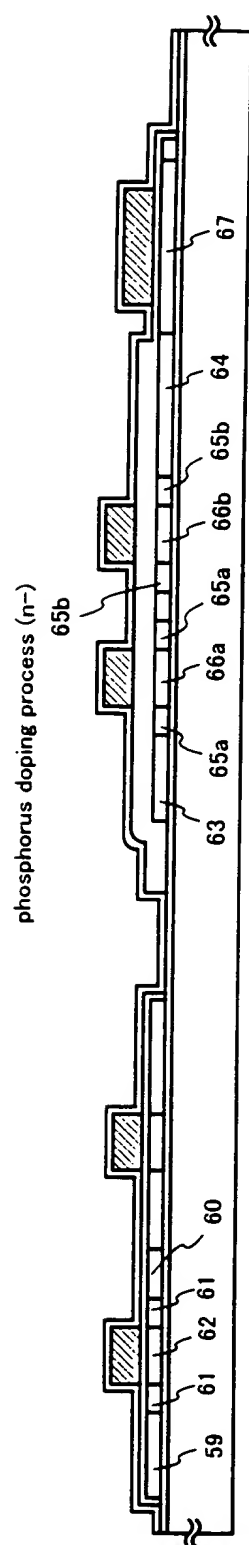


Fig. 13(C)

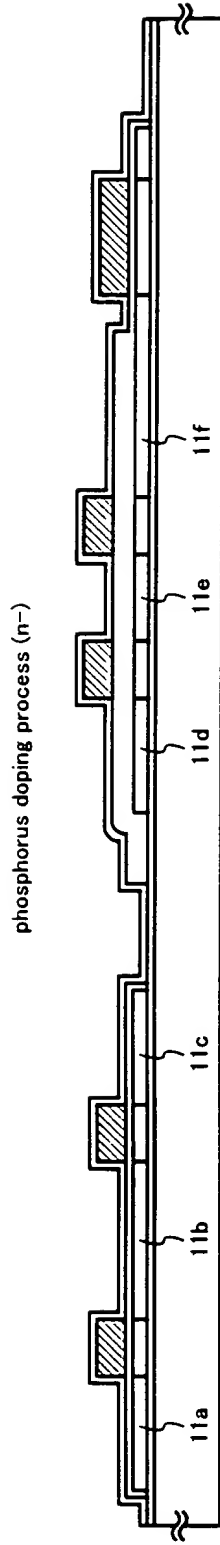


Fig. 14(A)

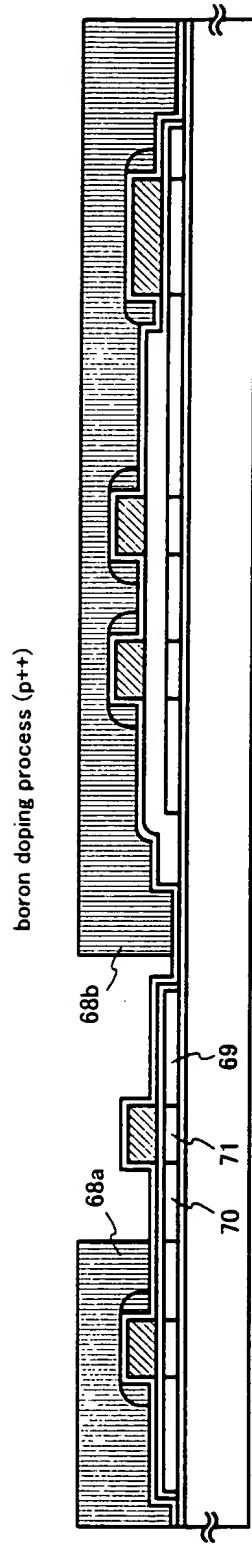


Fig. 14(B)

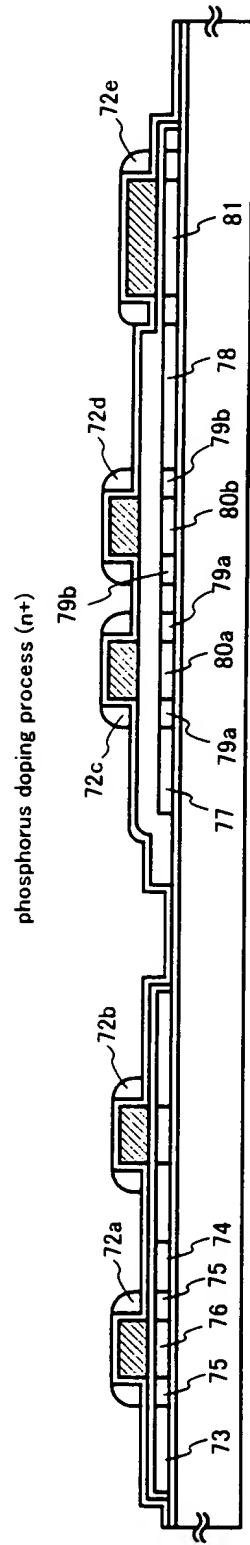


Fig. 14(C)

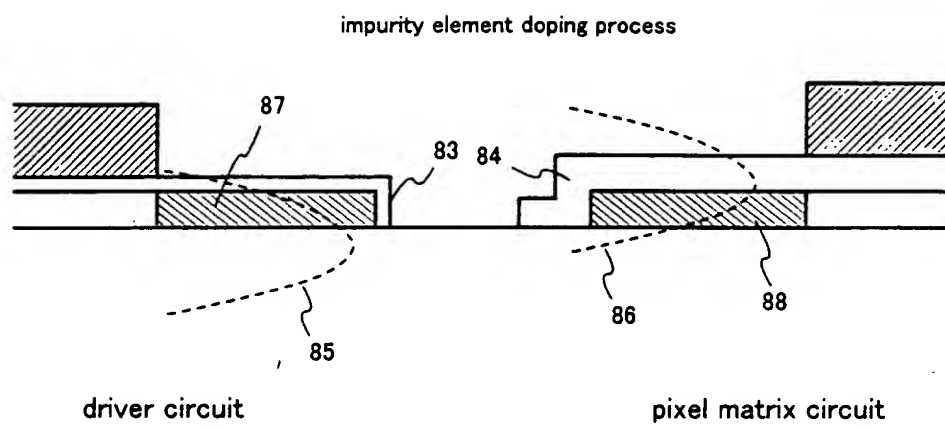


Fig. 15

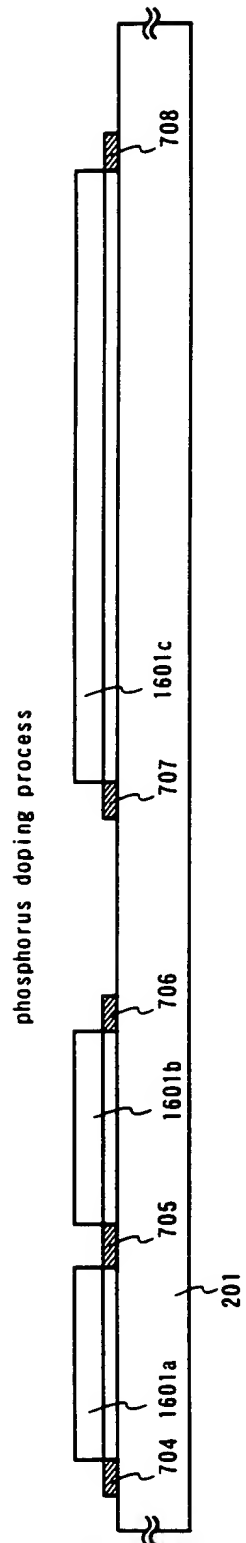


Fig. 16(A)

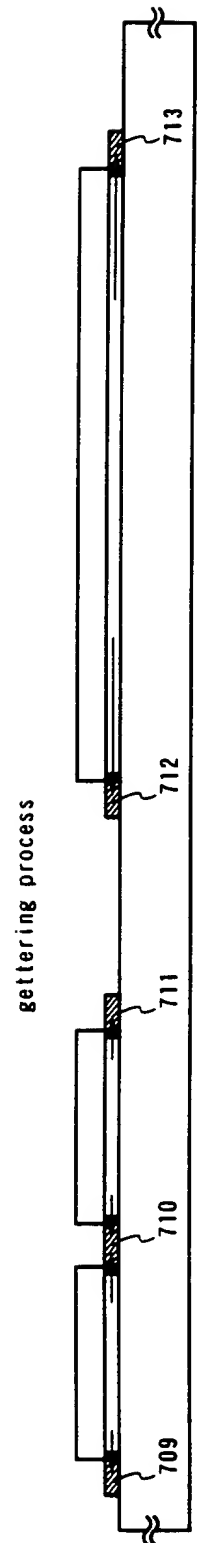


Fig. 16(B)

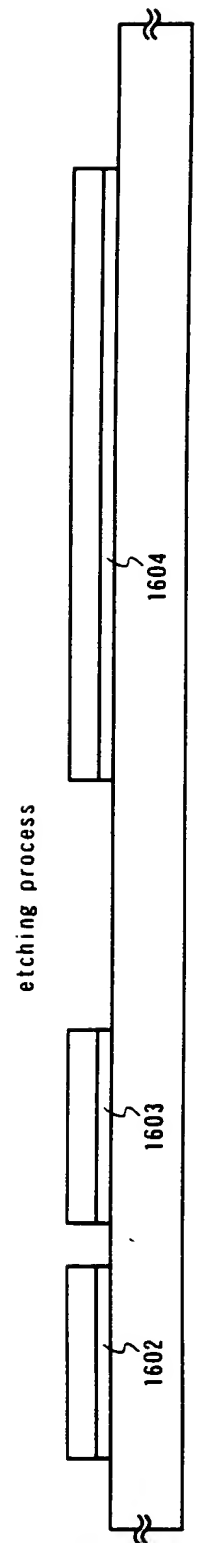


Fig. 16(C)

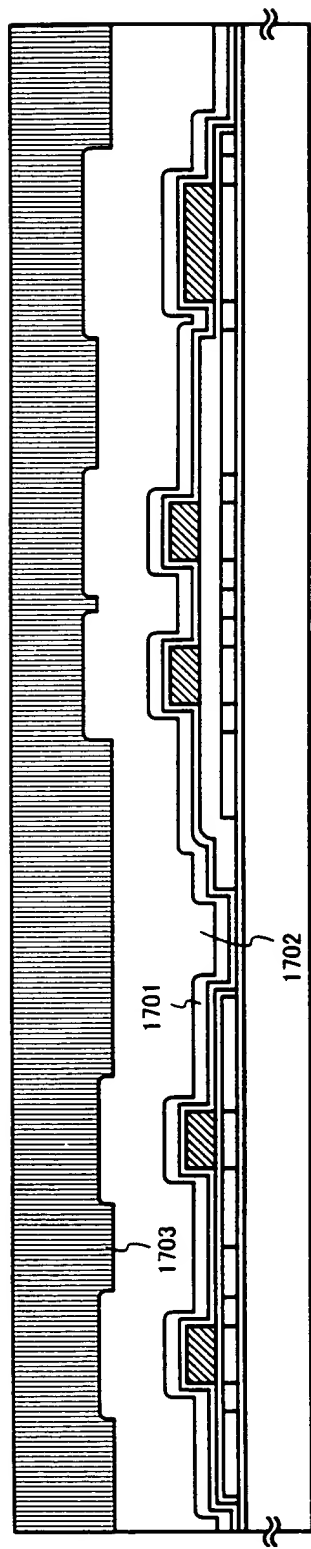


Fig. 17(A)

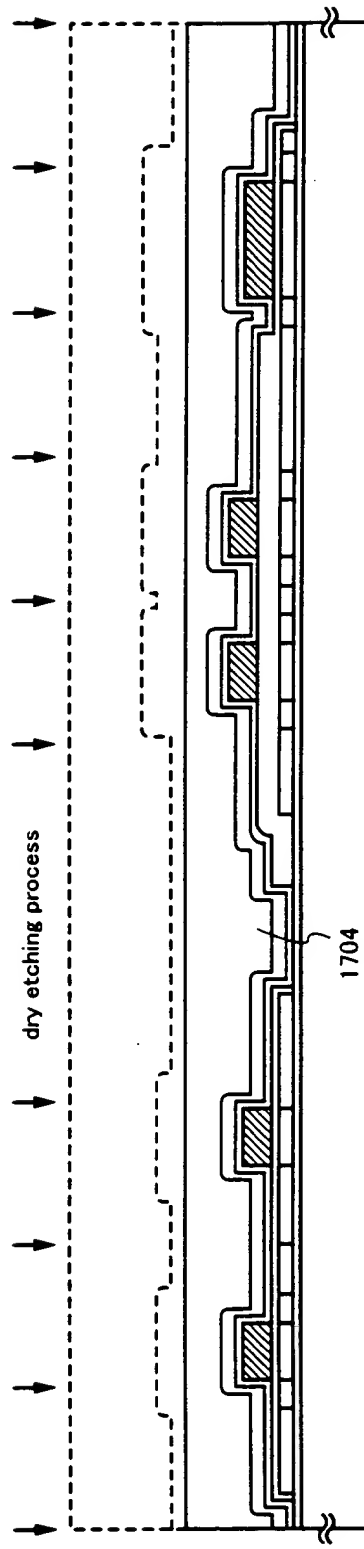
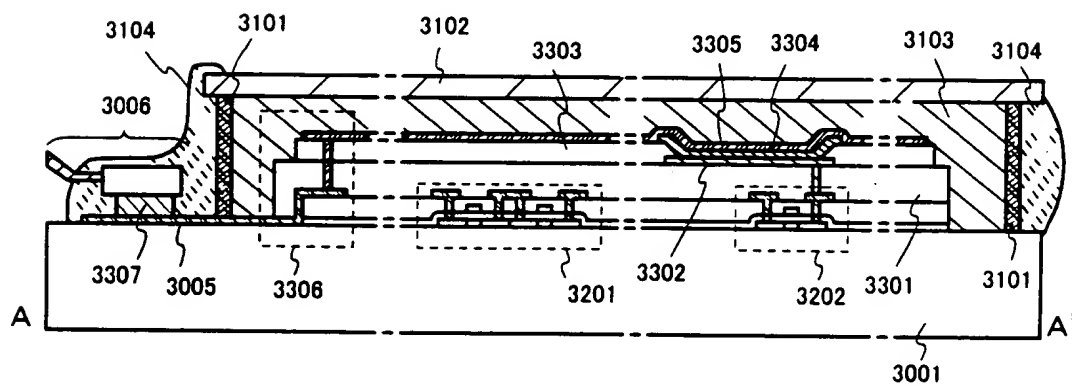
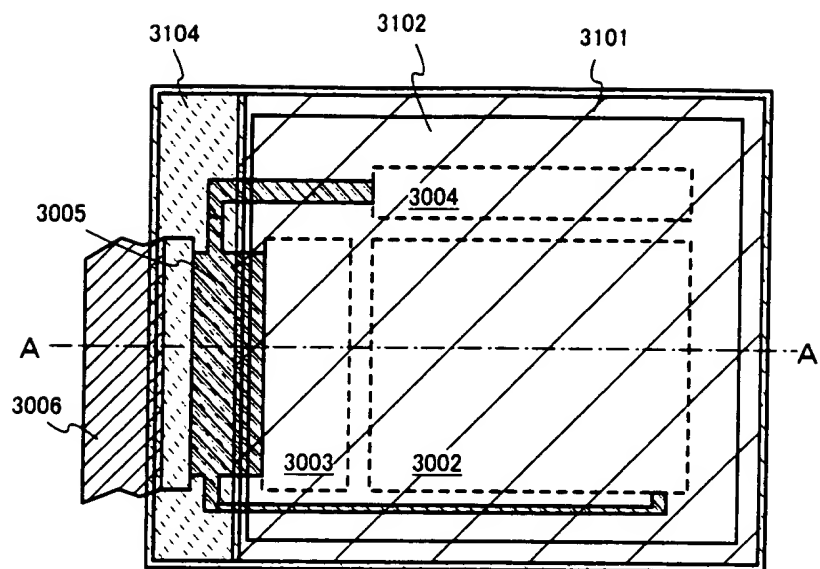


Fig. 17(B)



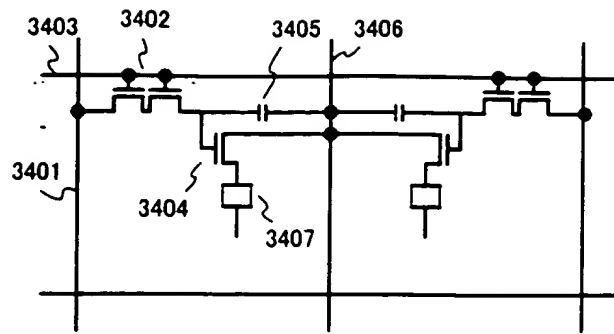


Fig. 19(A)

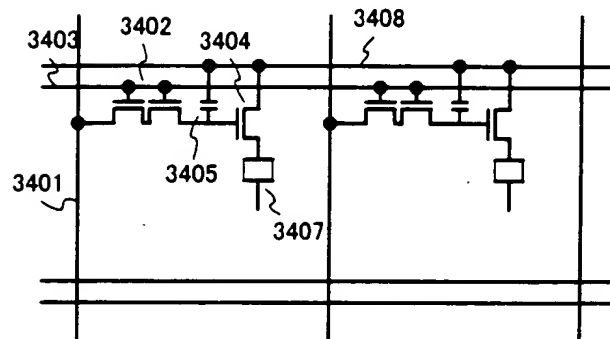


Fig. 19(B)

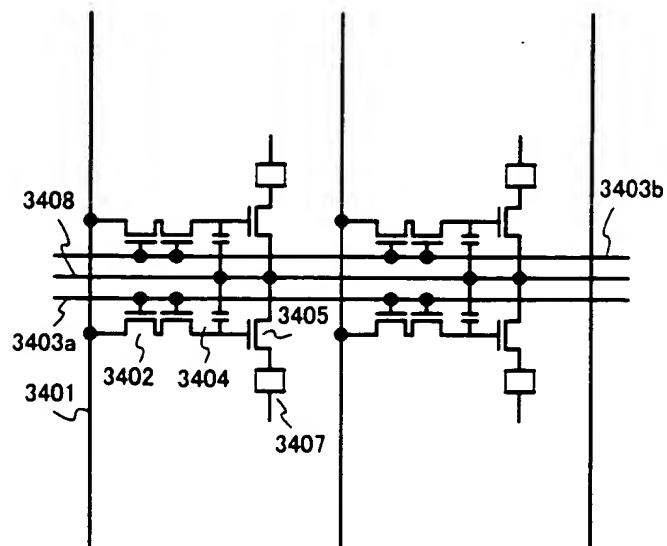


Fig. 19(C)

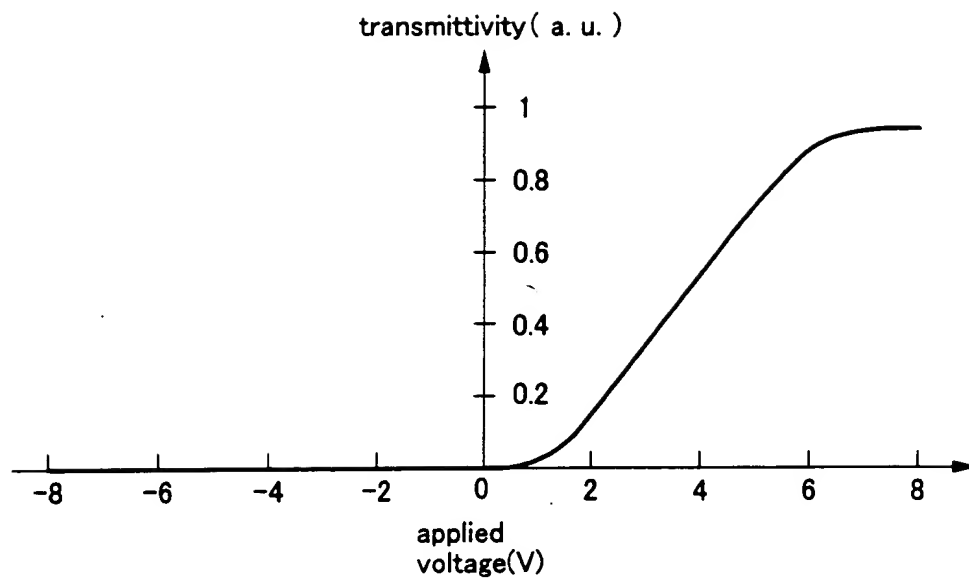


Fig. 20

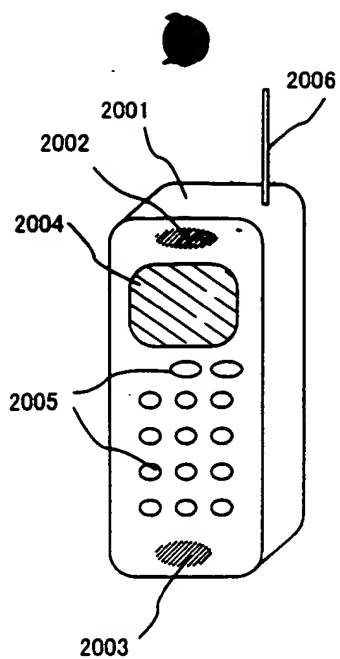


Fig. 21(A)

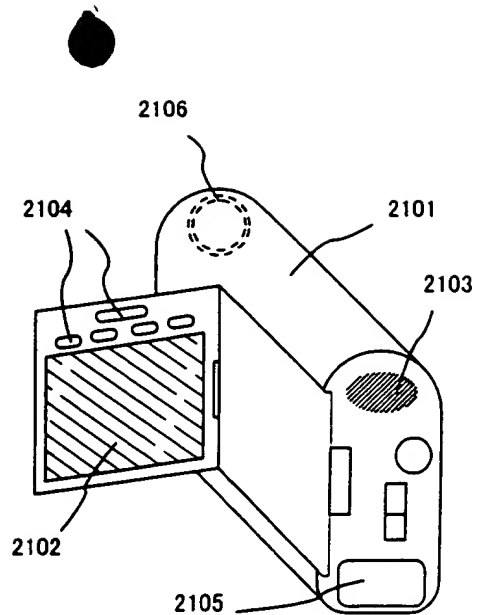


Fig. 21(B)

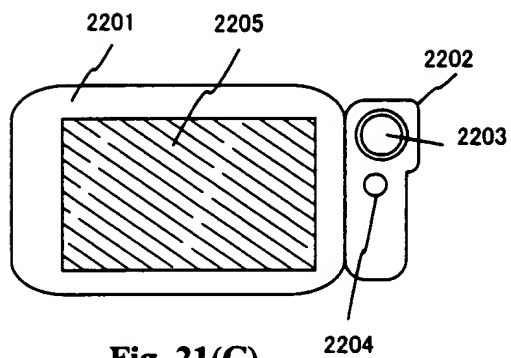


Fig. 21(C)

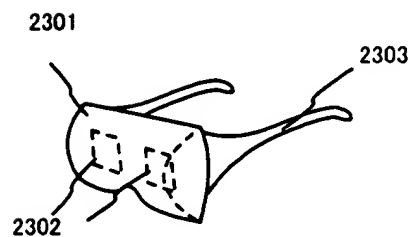


Fig. 21(D)

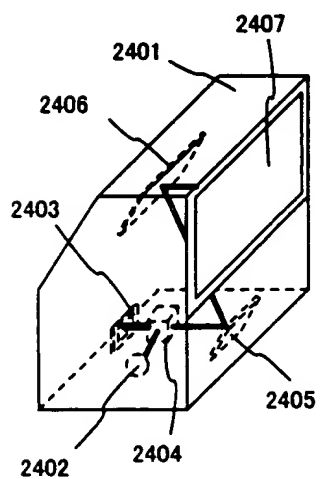


Fig. 21(E)

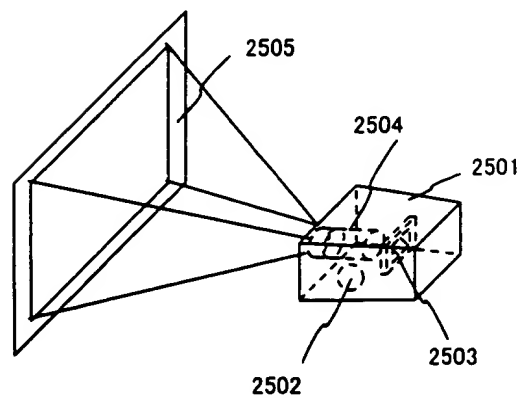


Fig. 21(F)

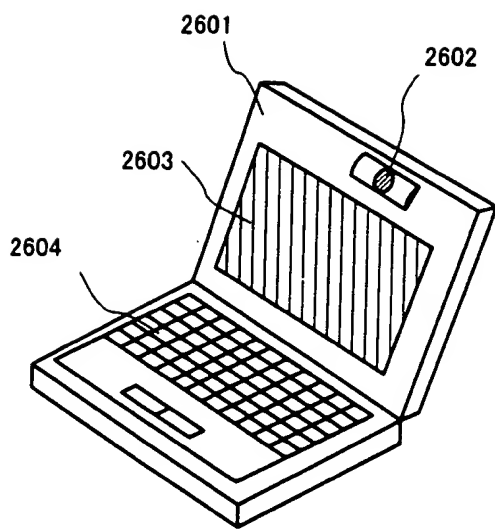


Fig. 22(A)

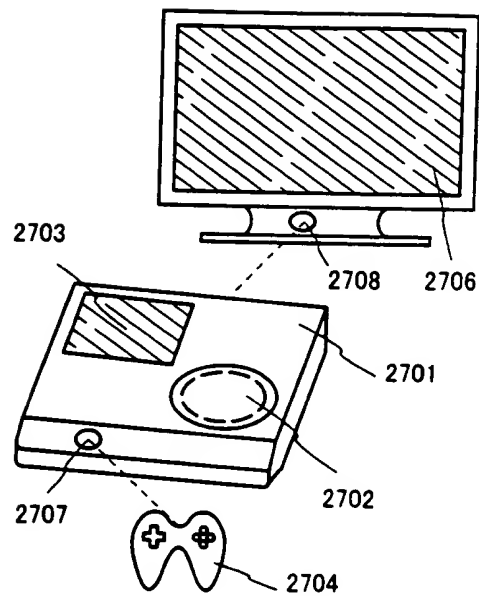


Fig. 22(B)

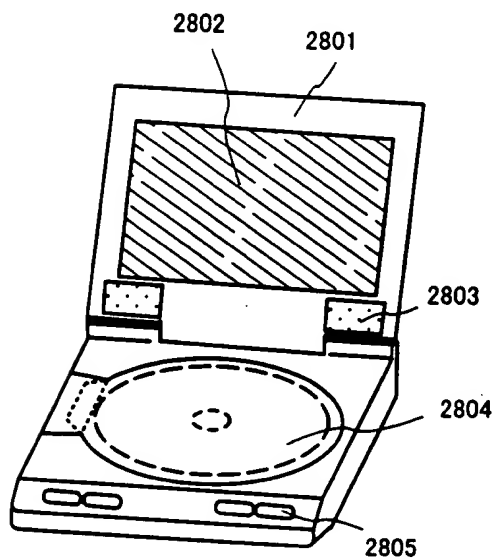


Fig. 22(C)

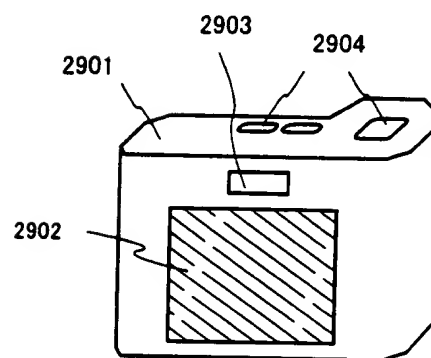


Fig. 22(D)

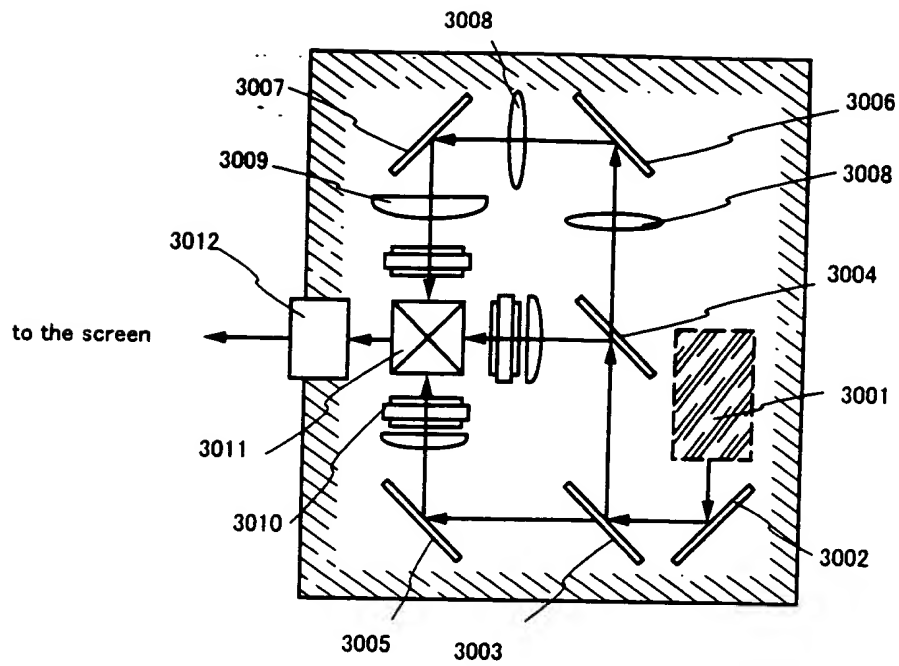


Fig. 23(A)

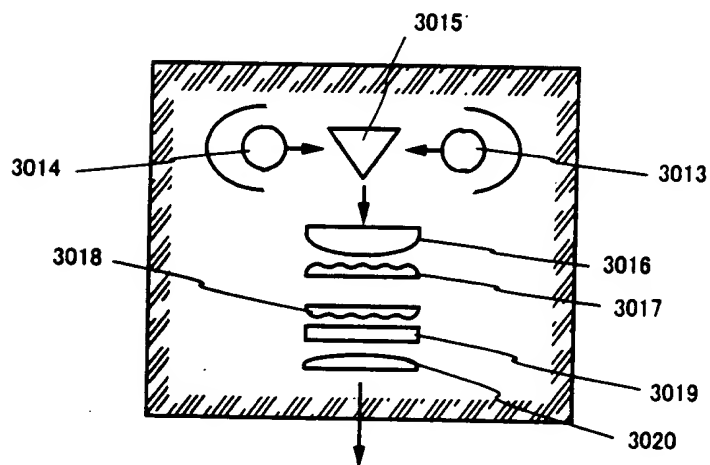


Fig. 23(B)

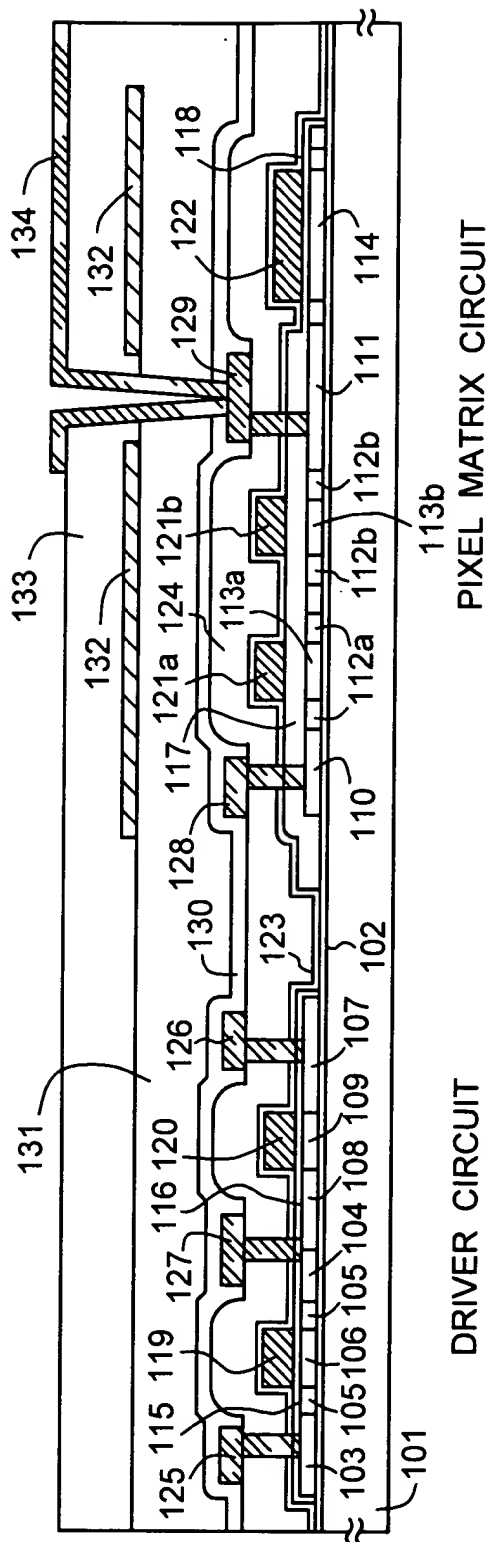


FIG. 1

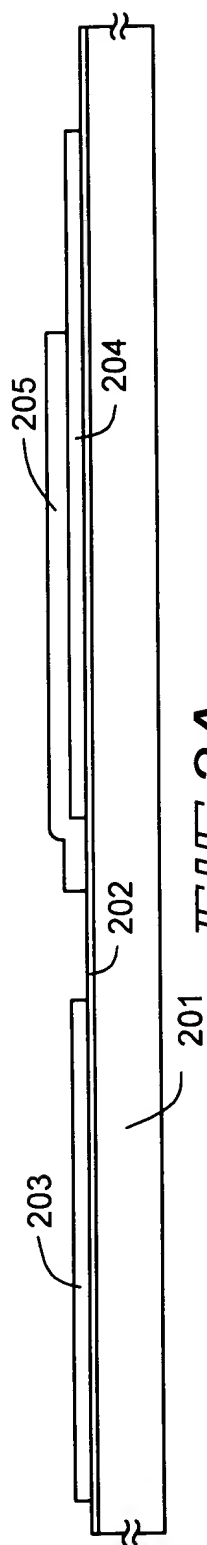


FIG. 2A

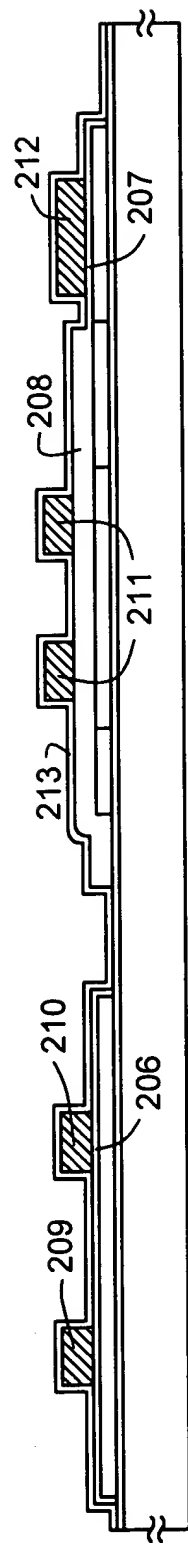


FIG. 2B

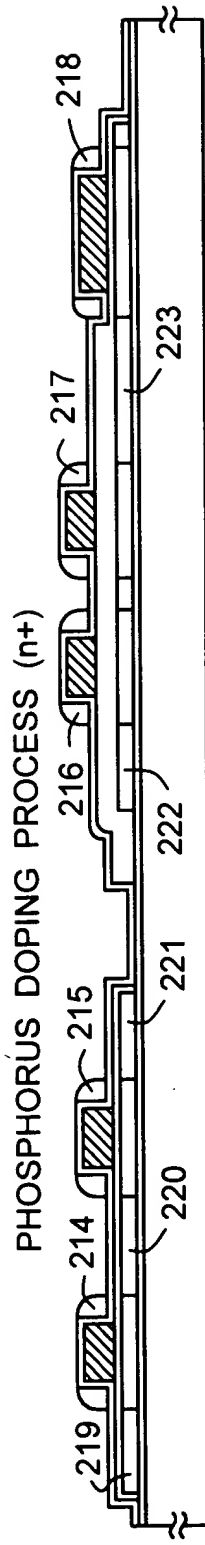


FIG. 2C

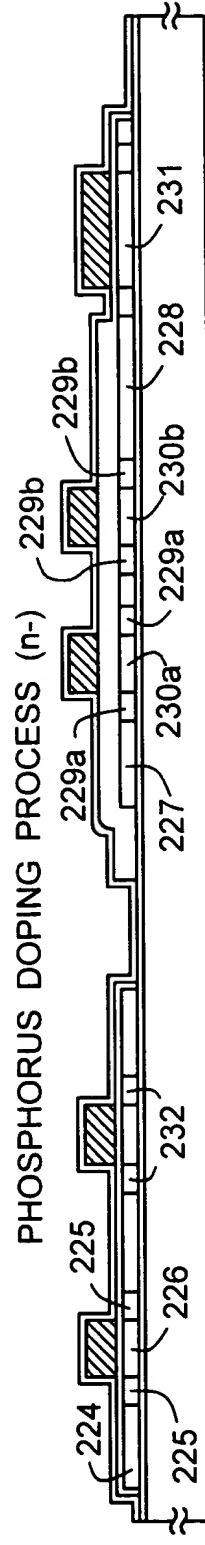


FIG. 2D

BORON DOPING PROCESS (p++)

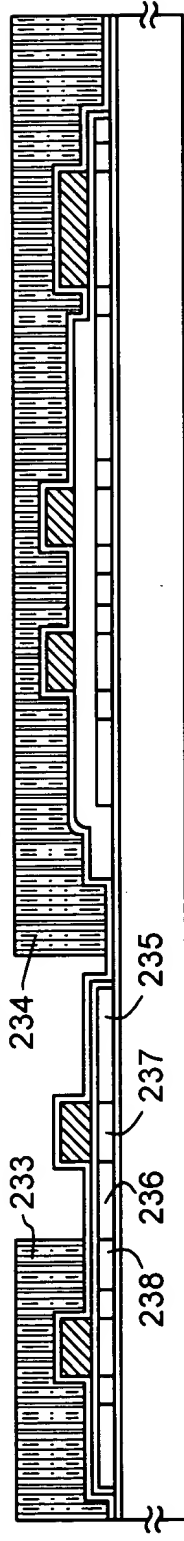


FIG. 3A

GETTERING PROCESS

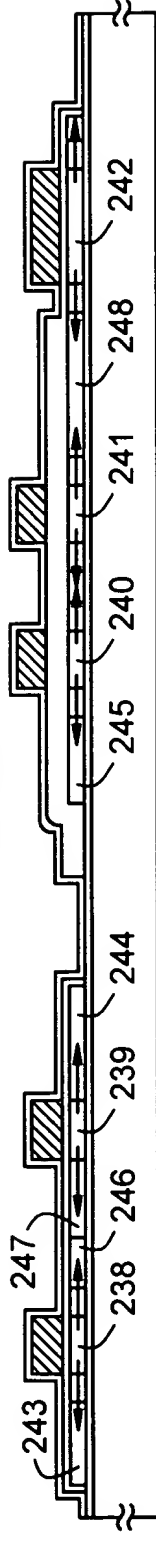
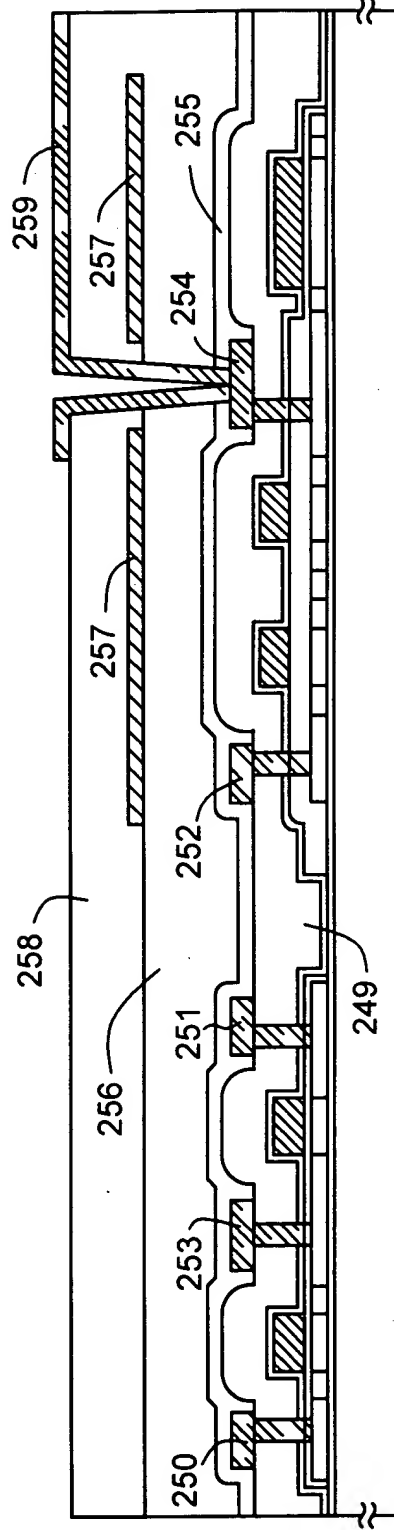


FIG. 3B



DRIVER CIRCUIT PIXEL MATRIX CIRCUIT

FIG. 3C

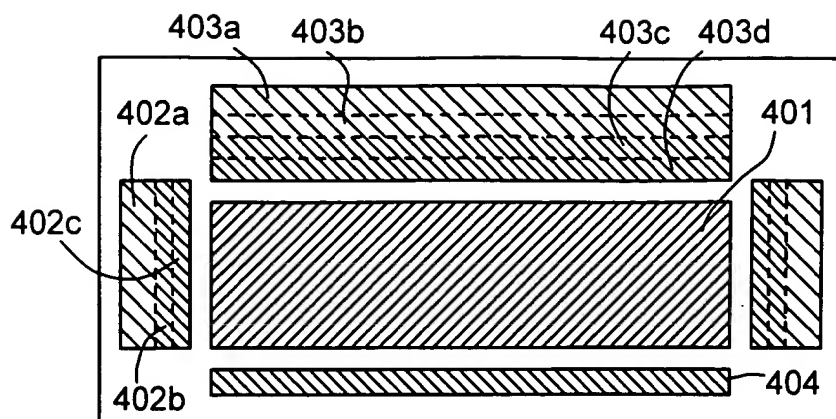


FIG. 4A

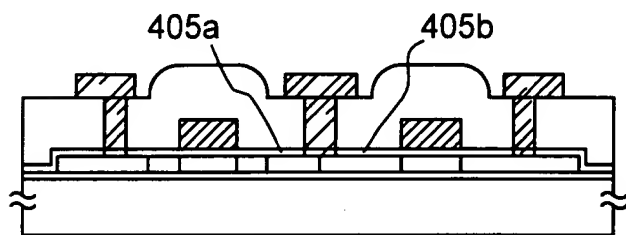


FIG. 4B

CMOS CIRCUIT OF THE AREA SHOWN
WITH HATCHING  IN FIG. 4A

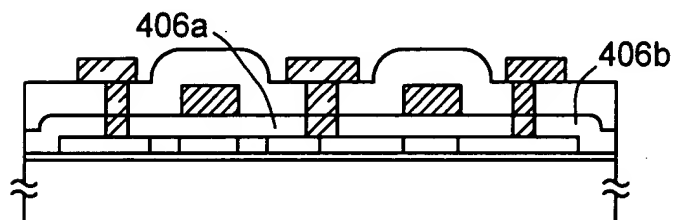


FIG. 4C

CMOS CIRCUIT OF THE REGION SHOWN
WITH HATCHING  IN FIG. 4A

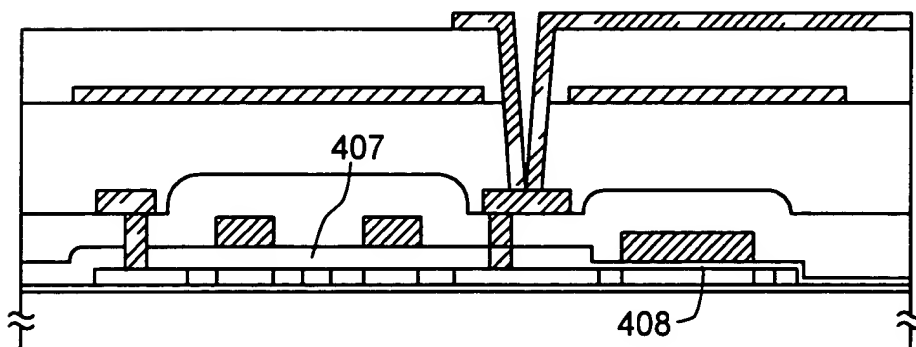


FIG. 4D

PIXEL MATRIX CIRCUIT OF THE AREA SHOWN
WITH HATCHING  IN FIG. 4A

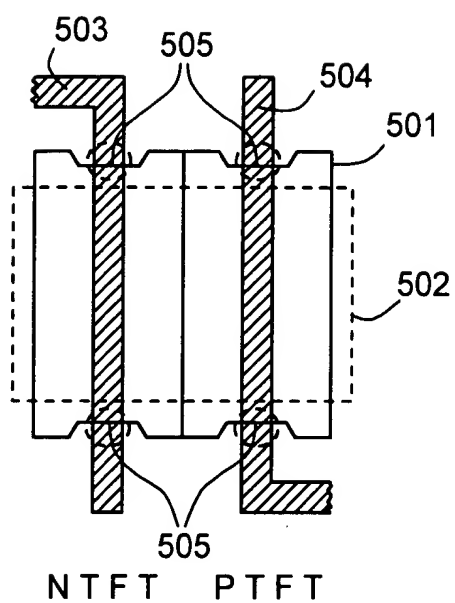


FIG. 5

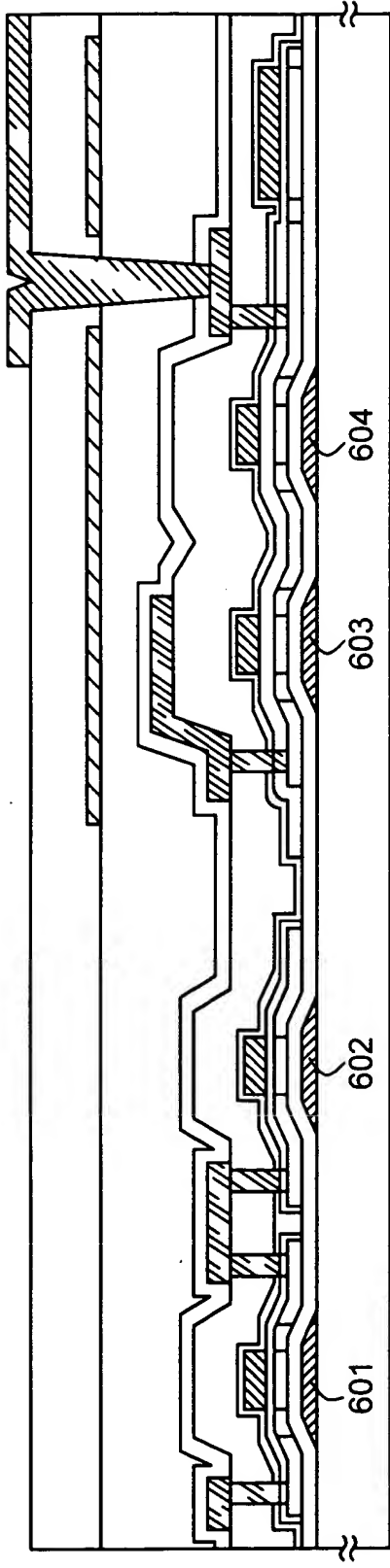


FIG. 6A

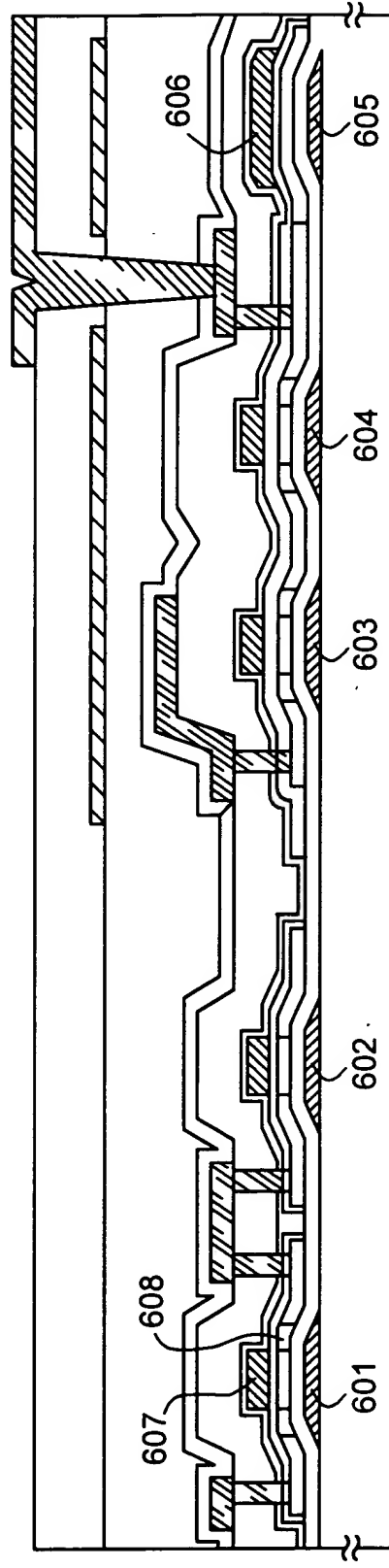


FIG. 6B

PHOSPHORUS DOPING PROCESS

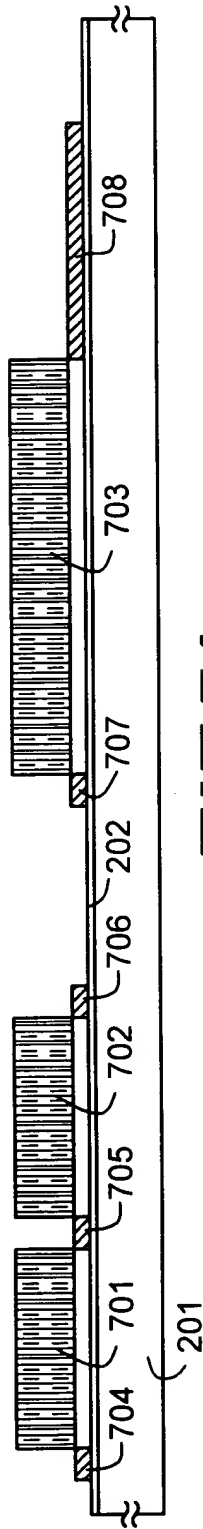


FIG. 7A

GETTERING PROCESS

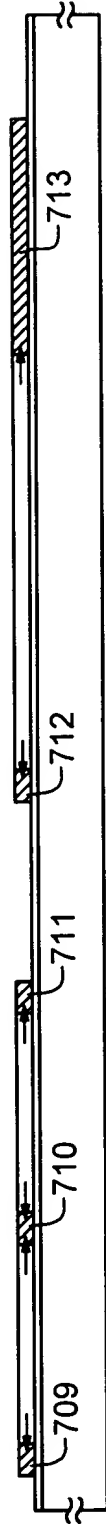


FIG. 7B

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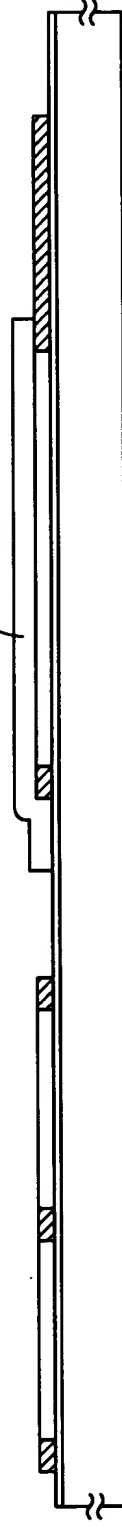
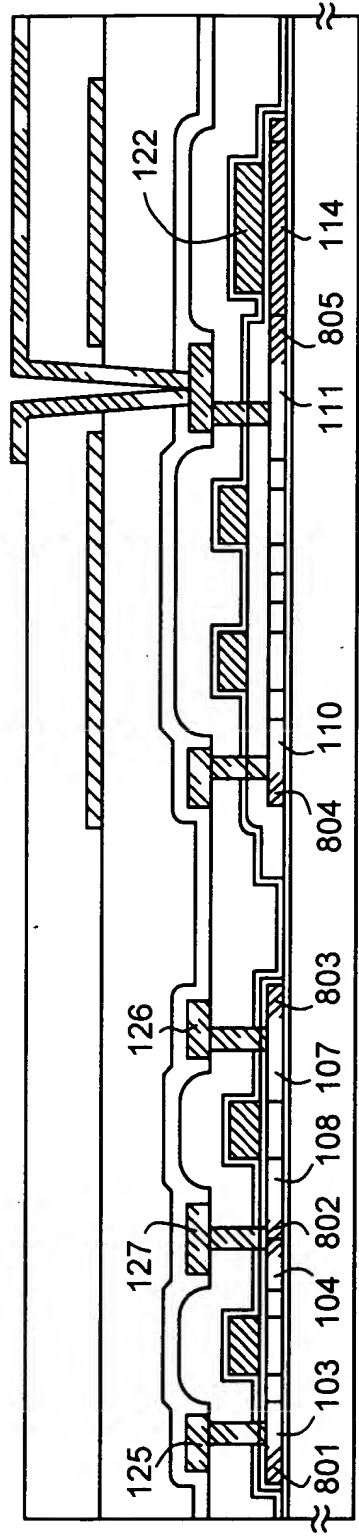


FIG. 7C



PIXEL MATRIX CIRCUIT

DRIVER CIRCUIT

FIG. 8

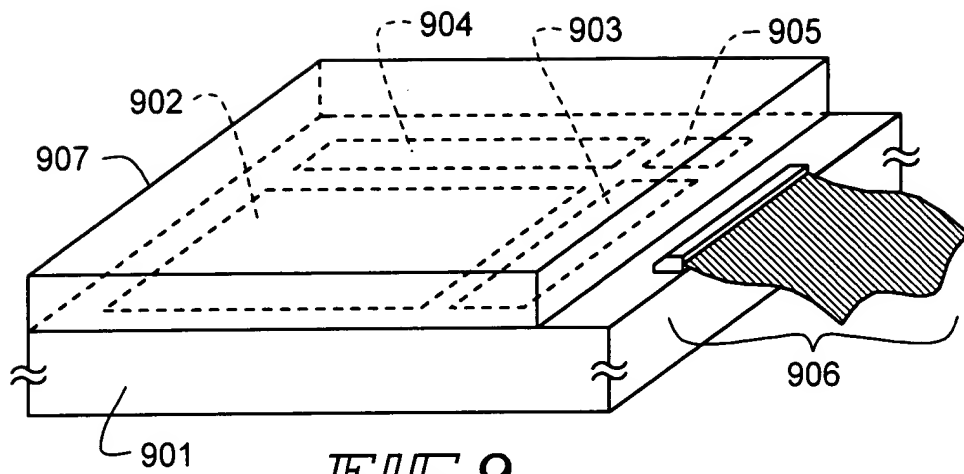


FIG. 9

PHOSPHORUS DOPING PROCESS (n-)

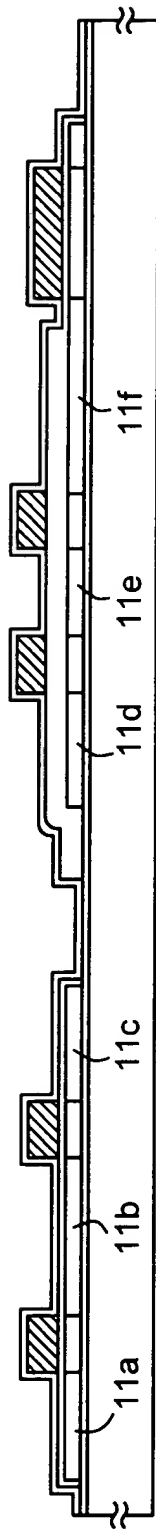


FIG. 10A

PHOSPHORUS DOPING PROCESS (n+)

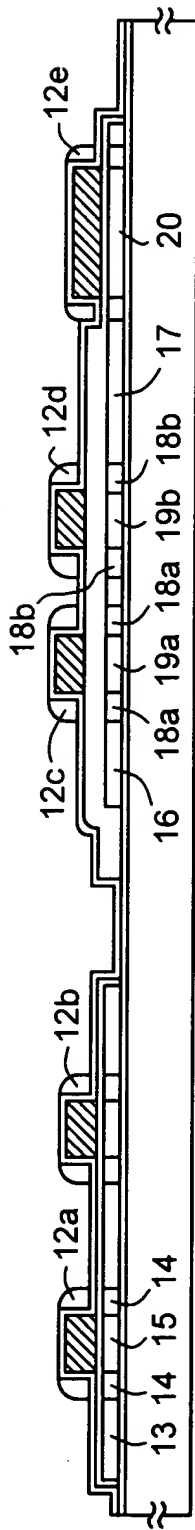


FIG. 10B

BROWN DOPING PROCESS (p++)

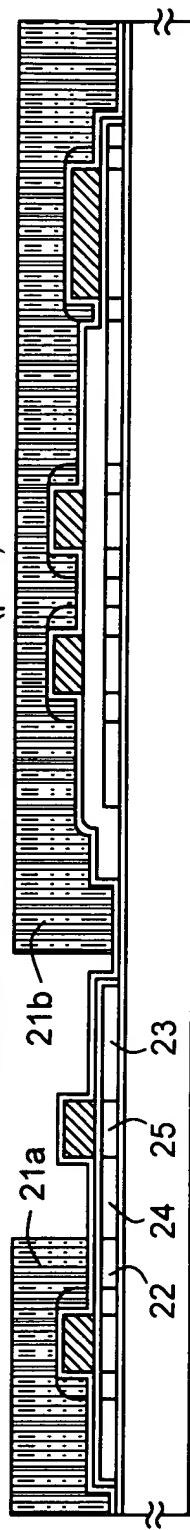


FIG. 10C

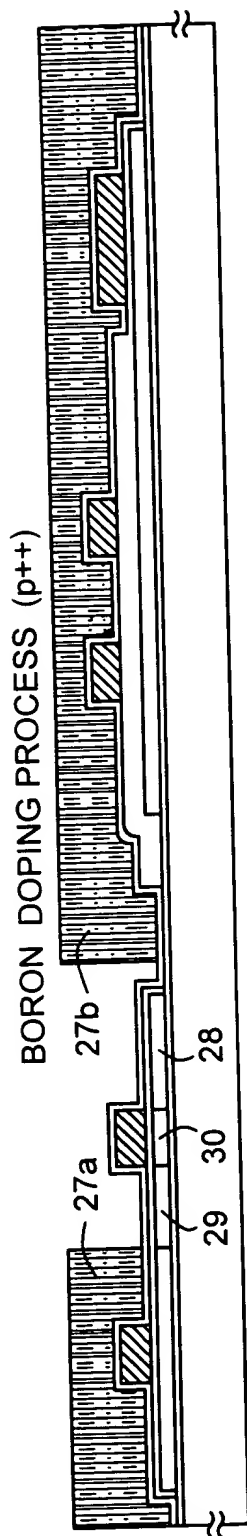


FIG. 11A

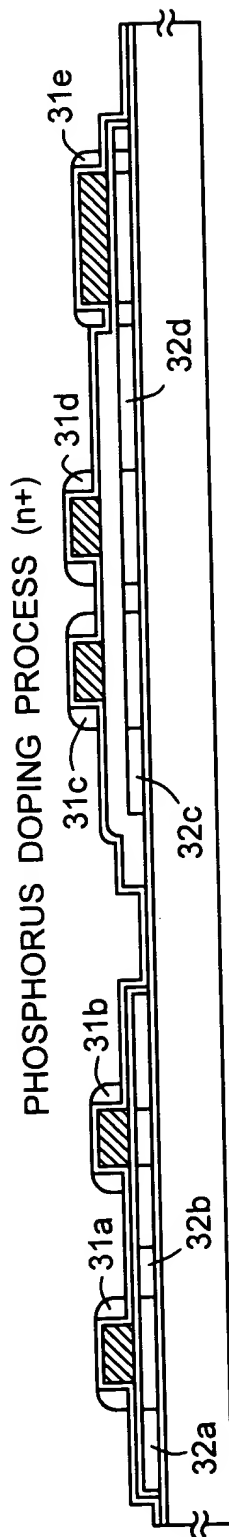


FIG. 11B

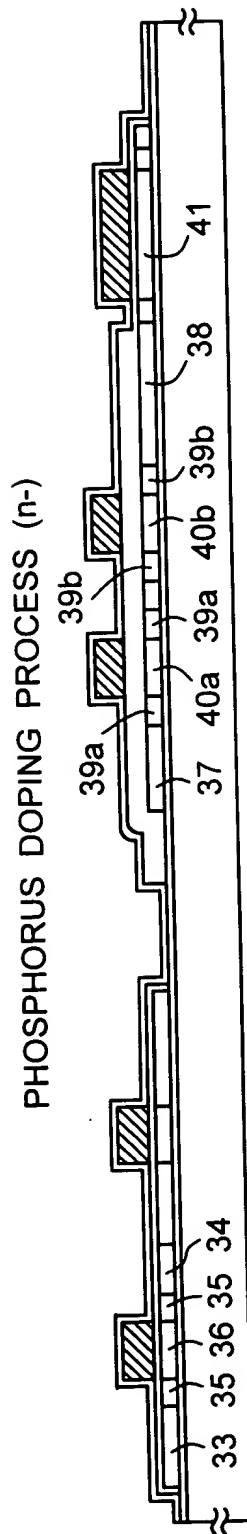


FIG. 11C

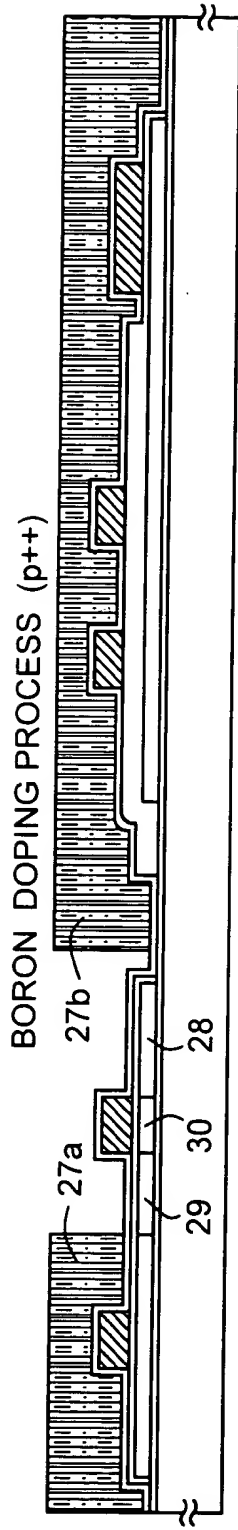


FIG. 12A

PHOSPHORUS DOPING PROCESS (n-)

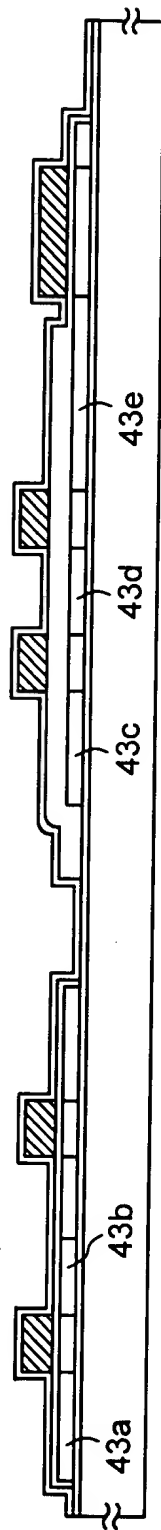


FIG. 12B

PHOSPHORUS DOPING PROCESS (n+)

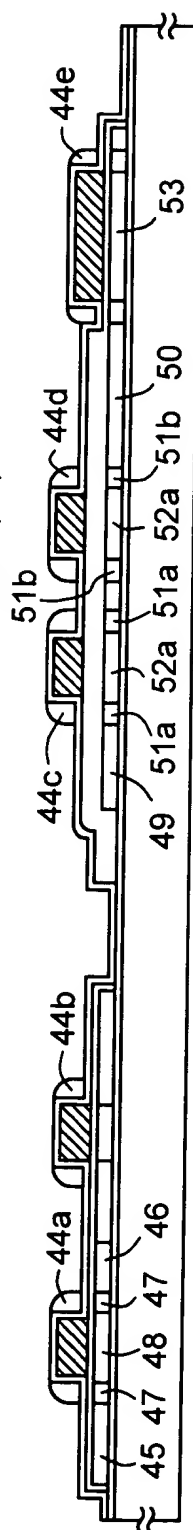


FIG. 12C

PHOSPHORUS DOPING PROCESS (n+)

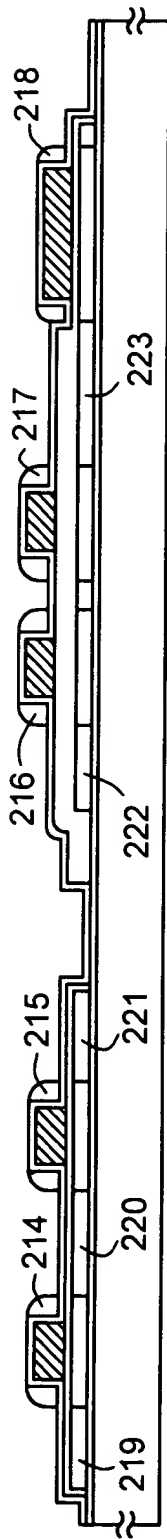


FIG. 13A

BORON DOPING PROCESS (p++)

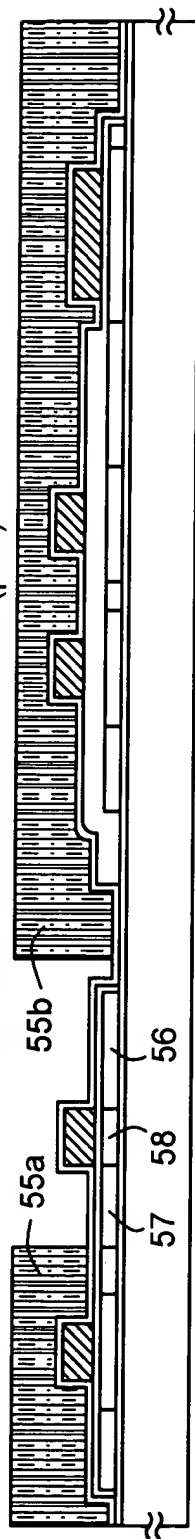


FIG. 13B

PHOSPHORUS DOPING PROCESS (n-)

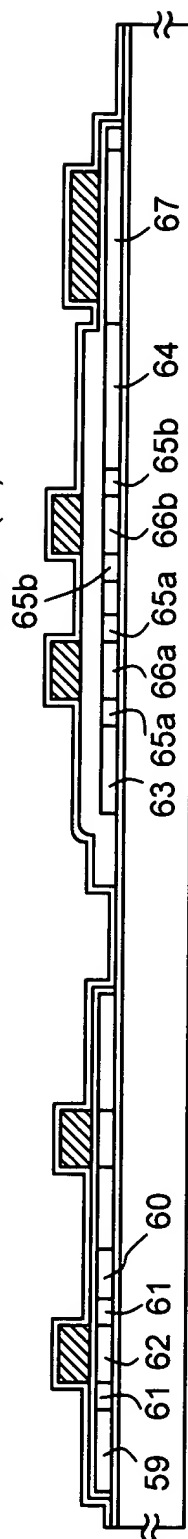


FIG. 13C

PHOSPHORUS DOPING PROCESS (n-)

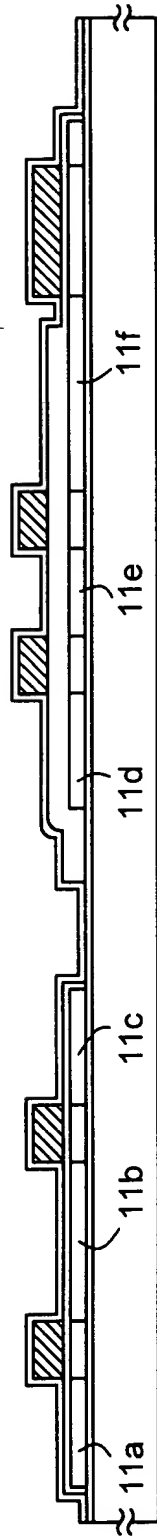


FIG. 14A

BORON DOPING PROCESS (p++)

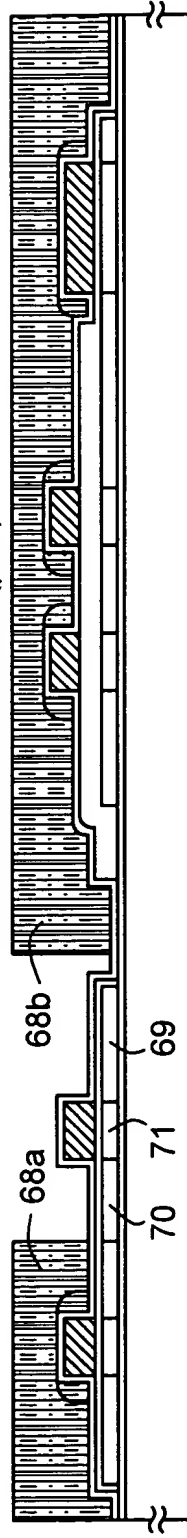


FIG. 14B

PHOSPHORUS DOPING PROCESS (n+)

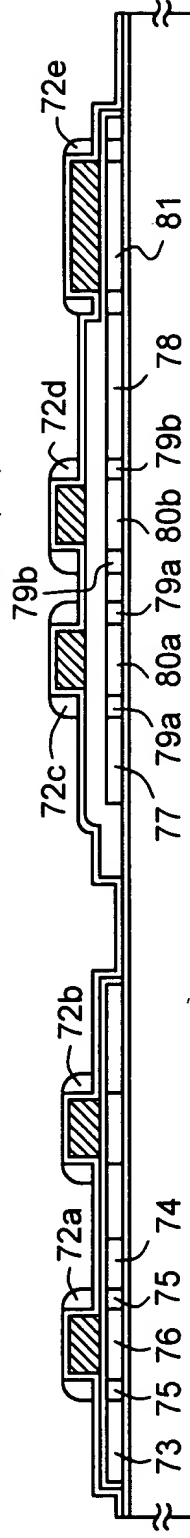


FIG. 14C

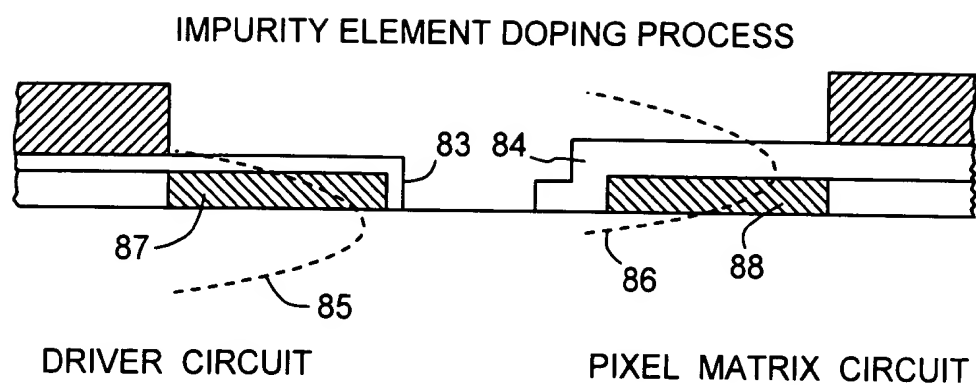


FIG. 15

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PHOSPHORUS DOPING PROCESS

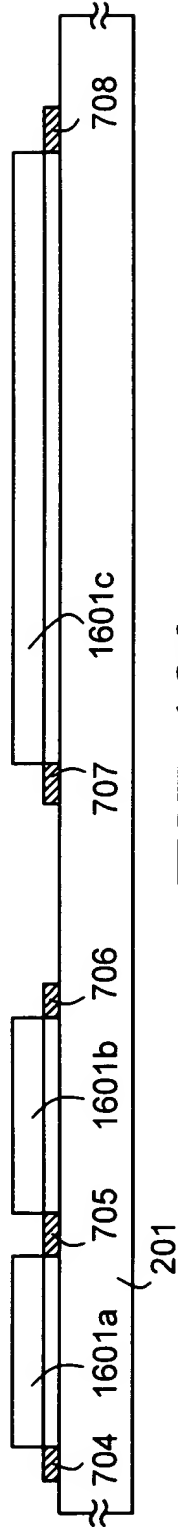


FIG. 16A

GETTERING PROCESS

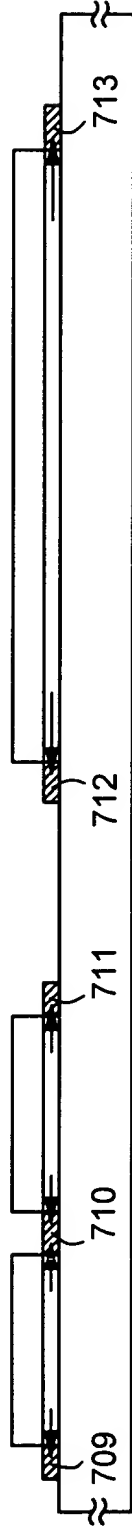


FIG. 16B

ETCHING PROCESS

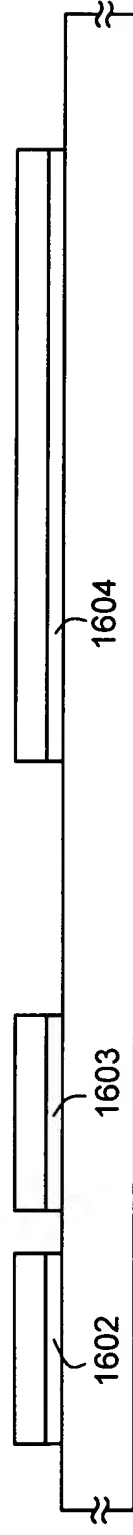


FIG. 16C



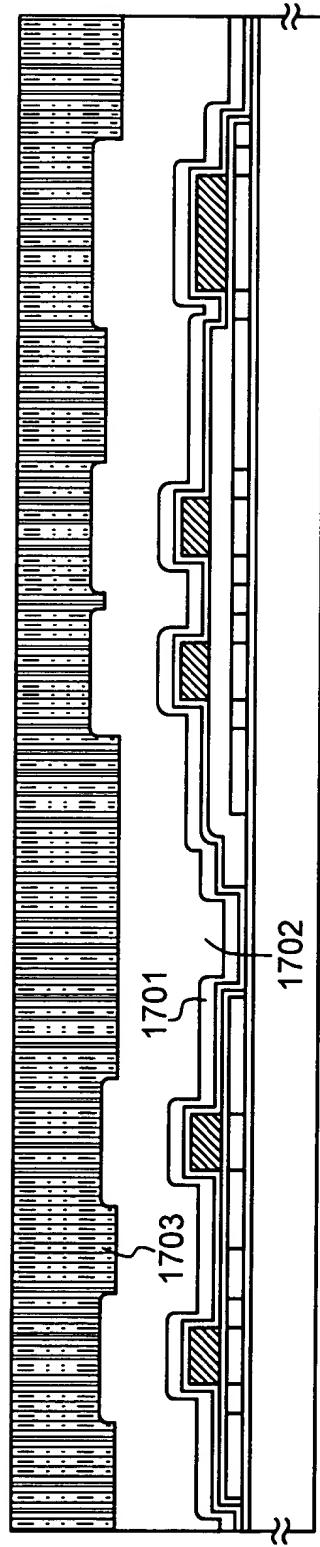


FIG. 17A

DRY ETCHING PROCESS

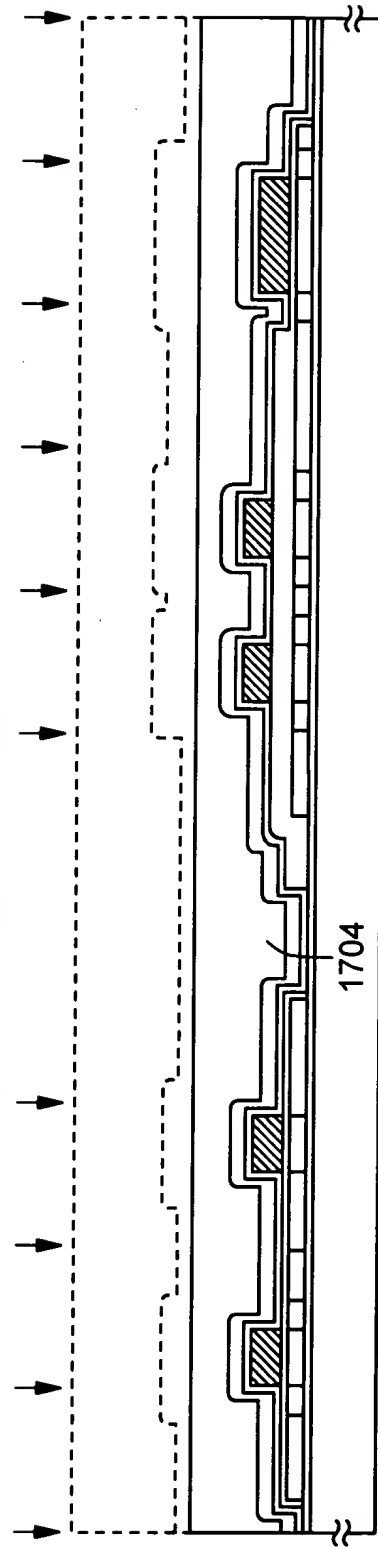


FIG. 17B



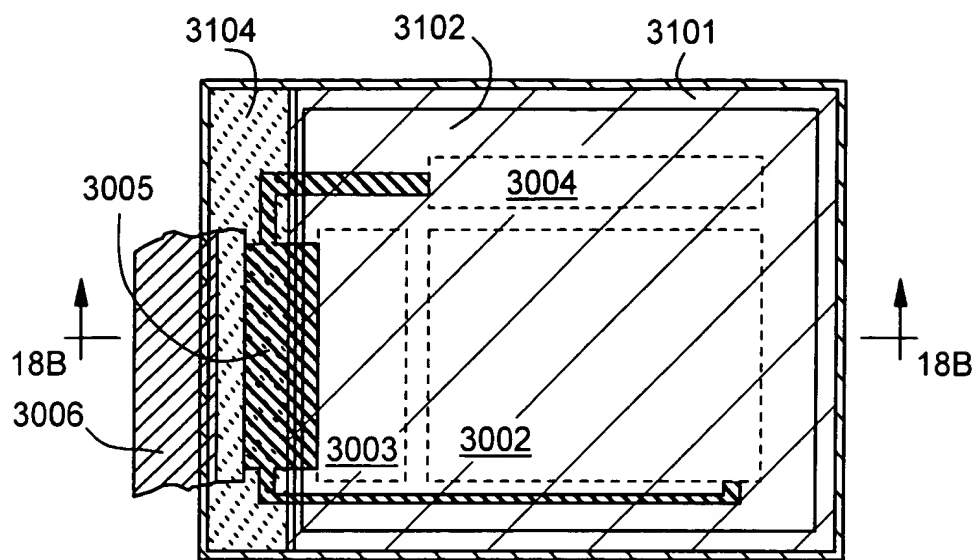


FIG. 18A

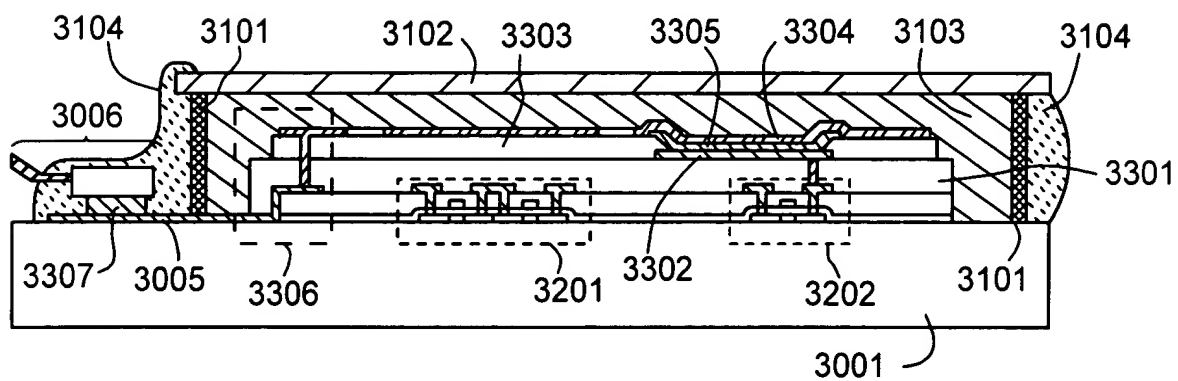


FIG. 18B



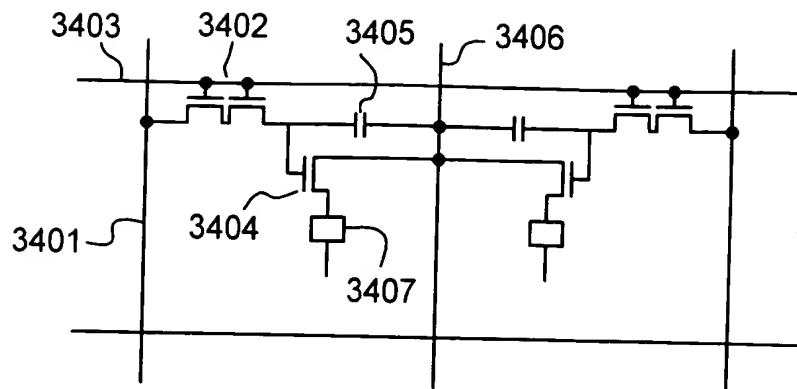


FIG. 19A

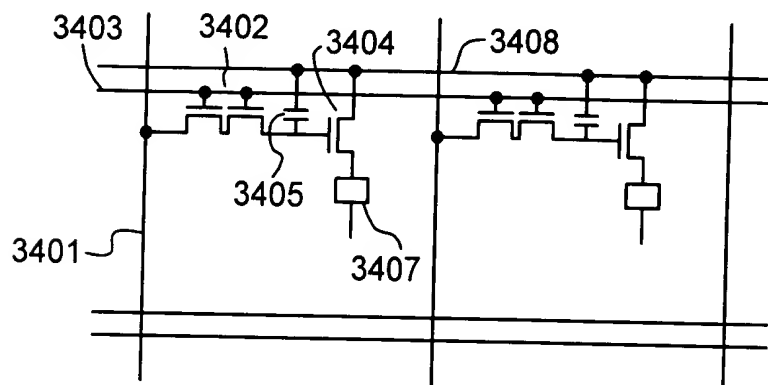


FIG. 19B

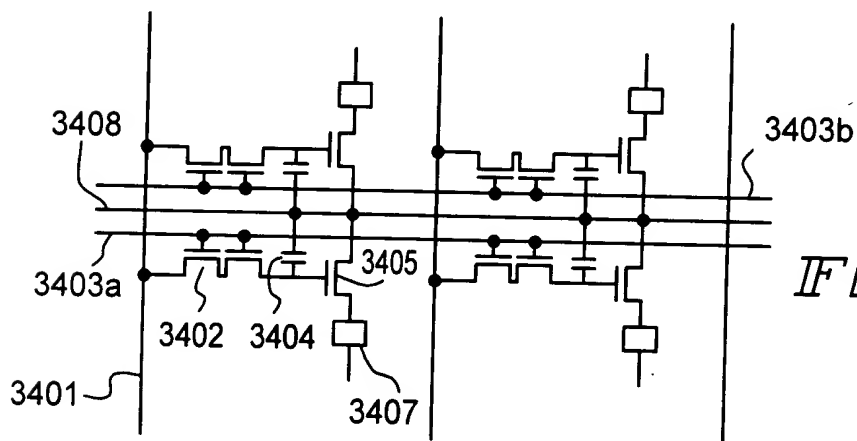


FIG. 19C

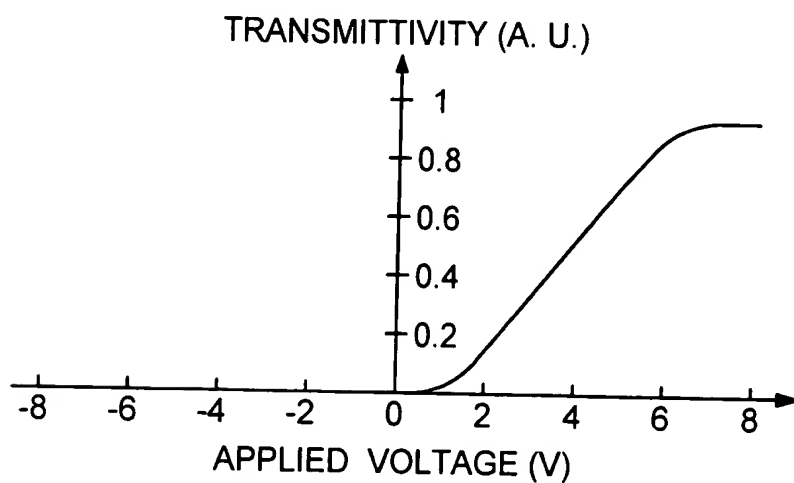


FIG. 20

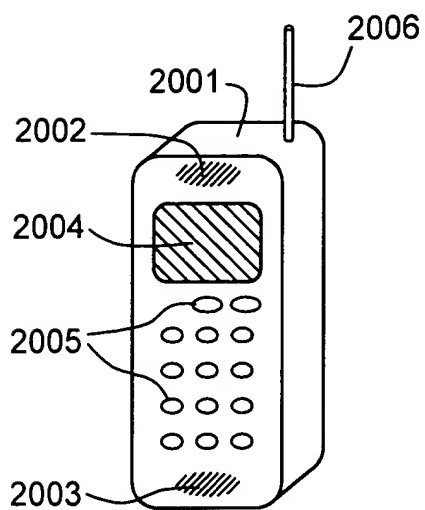


FIG. 21A

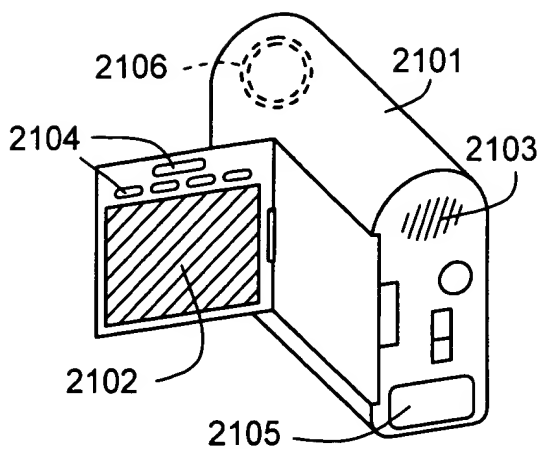


FIG. 21B

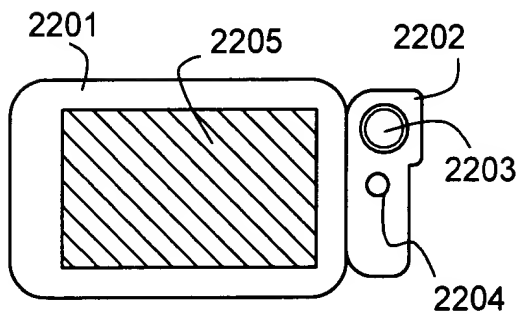


FIG. 21C

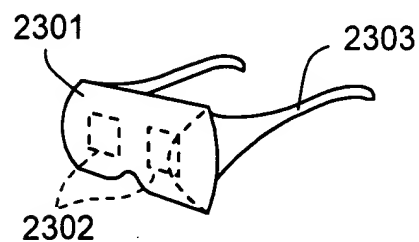


FIG. 21D

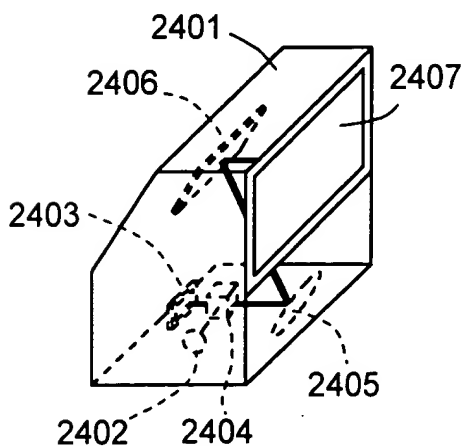


FIG. 21E

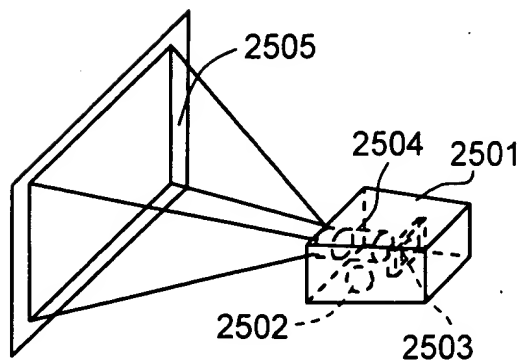


FIG. 21F

FIG. 21A



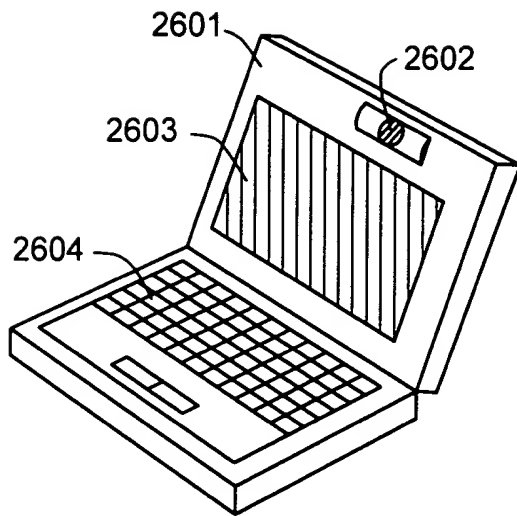


FIG. 22A

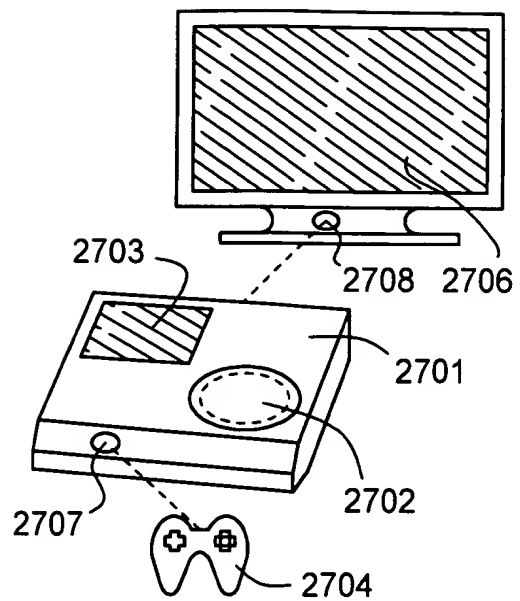


FIG. 22B

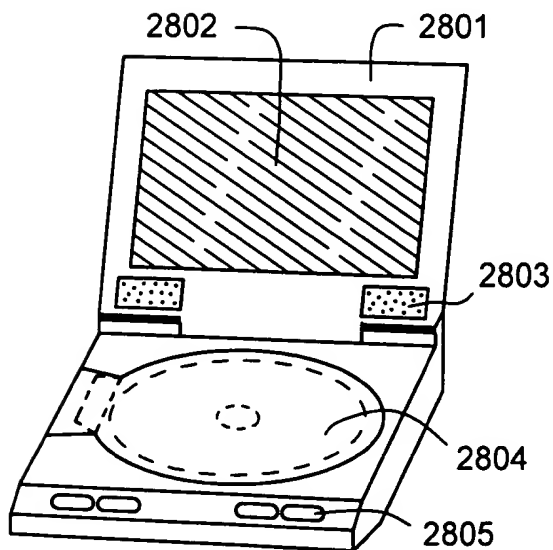


FIG. 22C

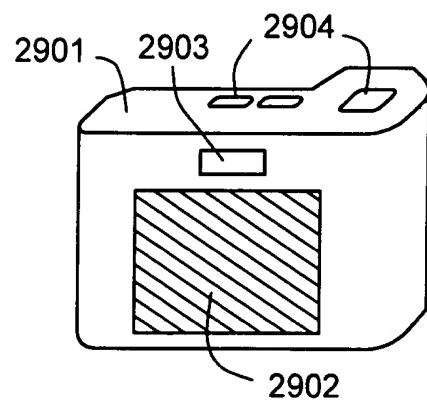


FIG. 22D

FIG. 23A

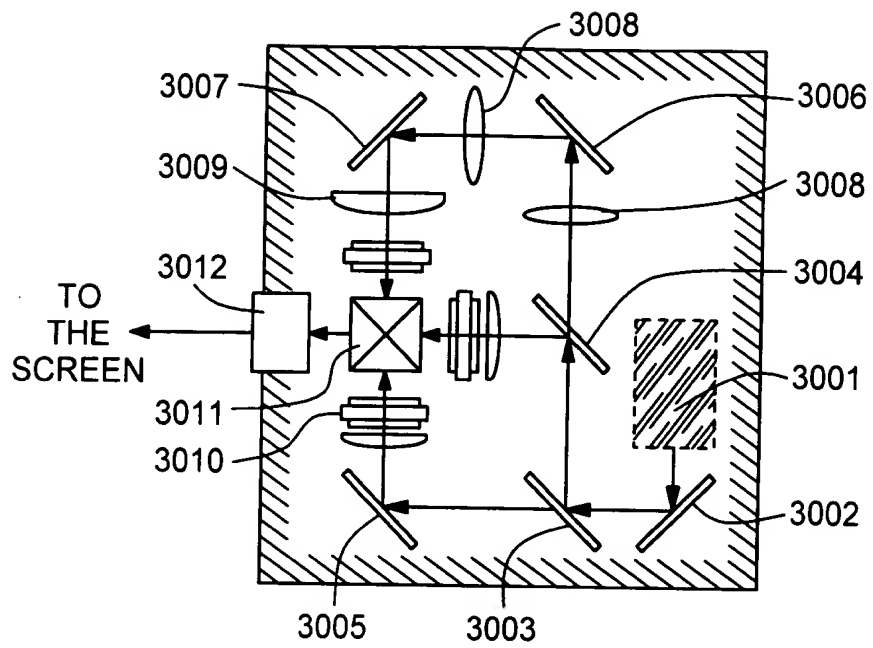


FIG. 23A

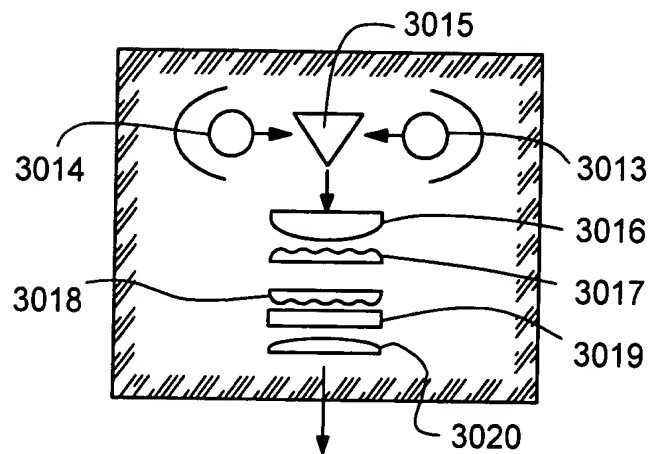


FIG. 23B